

# ARIZONA

ALUMNI MAGAZINE | SPRING 2022 | VOLUME 99/2



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# ARIZONA ALUMNI MAGAZINE SPRING 2022

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The University of Arizona

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## PRODUCTION

Arizona Alumni Magazine is produced by the Office of  
Marketing and Communications in the University of  
Arizona Alumni and Development Program.

The University Alumni and Development Program  
was formed in 2020 as the result of a merger  
between the Alumni Association and UArizona  
Foundation.

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Update your information and magazine mail prefer-  
ences by emailing the Alumni and Development  
Program at [alumninews@al.arizona.edu](mailto:alumninews@al.arizona.edu). If you opt  
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peoples. Today, Arizona is home to 22 federally  
recognized tribes, with Tucson being home to the  
O'odham and the Yaqui. Committed to diversity and  
inclusion, the University strives to build sustainable  
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Marcia Rieke | 160/90 photo



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# ARIZONA

ALUMNI MAGAZINE SPRING 2022

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Chris Richards photos



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Maribel Alvarez '03 says folklore is our everyday, and she engages the Tucson community in folklife through foodways that celebrate culture and diversity.



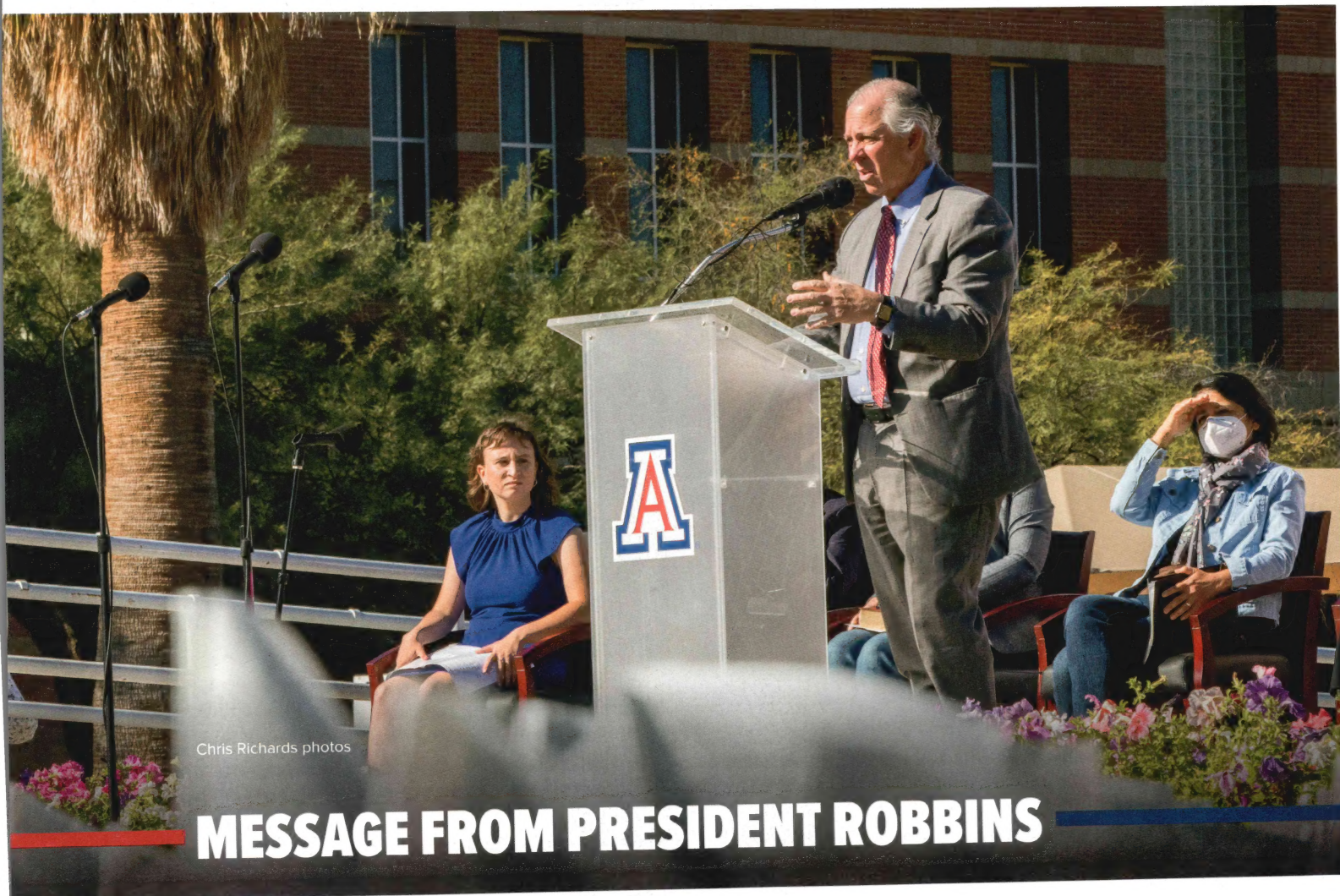


## WONDER IN AUSTIN

The University of Arizona welcomed thousands of people to the Wonder House during its inaugural appearance at South by Southwest. University experts shared insights related to sustainability, culture, wellness, creativity and diversity and inclusion. Kyle Mittan photo







Chris Richards photos

## MESSAGE FROM PRESIDENT ROBBINS

### DEAR WILDCATS,

One of the best parts of my job is supporting Wildcat athletics, and men's and women's basketball had incredible runs this year. All of the renewed excitement about basketball gave me a chance to interact with alumni from all over the world, and while a big part of those conversations is the 'Cats, alumni always emphasize to me how much they appreciate their degrees and how proud they are of what their degrees allow them to accomplish in the world.

I am incredibly proud of all our alumni. Wildcats make the world a better place every day, which is why continuing to help our students succeed is one of the two most important things we do at the university. One of the many ways alumni can help with this top priority is serving as mentors. You can find advice to graduating seniors from some of our mentors on page 59, and a little from me on the following page.

The second most important thing we do is discovering new knowledge through research conducted by our faculty, staff and students. There are so many phenomenal things going on at the university every day: You have probably seen the

James Webb Space Telescope (page 22) in the news; Jennifer Barton has developed an early ovarian cancer detection technology (page 10); and through the Arizona Institutes for Resilience, we are partnering with tribal communities to develop solutions that improve people's resilience in the wake of environmental shocks (page 30).

Finally, I hope you will watch some of the truly amazing presentations university visionaries shared at the Wonder House, our restaurant takeover in Austin at this year's South by Southwest. You can find them at [sxsw.arizona.edu](http://sxsw.arizona.edu), and if you are looking for something to do next spring break, head to Texas for our showcase during next year's conference. It is going to be even better.

Bear Down and Go Cats!

Robert C. Robbins, M.D.  
President  
The University of Arizona





# A DAY OF REMEMBRANCE

**T**he University of Arizona celebrated a Day of Remembrance in March to recognize and mourn the many lives lost during the COVID-19 pandemic.

Robert C. Robbins, MD, president of the University of Arizona, who has led the campus community through more than two years of challenging times, shared his comments at the event. Robbins has often been called upon for his experience as a medical professional during the pandemic. He shared his experience with Arizona Alumni Magazine and concluded by providing sage advice for recent graduates.

## Robbins' Reflections

People are certainly ready to move on, and while I look forward with optimism, it's important to reflect upon how far we've come as a community and to recognize lives lost.

I've been incredibly grateful and impressed by the common spirit of our faculty, staff and students coming together. We talked early on that we're all in this together, and truly, we came together internally as a university community.

I'm also really proud of how we reached out beyond the boundaries of the university into the community. The incredible effort of standing up a vaccination pod and making vaccines available to so many people in Southern Arizona so quickly was really impressive to me.

Although I knew a lot about the health sciences, I got an up-close, on-the-frontline experience that I don't think I would have experienced had it not been for the pandemic. I really rolled up my sleeves and every day was on a call with our public health people — our top immunologist, virologist, epidemiologist.

And they are absolutely world class. They've been on the world stage and on the cutting edge looking at these new variants, genotyping them. Using wastewater epidemiology to help mitigate risks and protect our university community. And certainly Dr. Richard Carmona, who led our COVID-19 reentry taskforce, is a treasure to have at this university. [Carmona was the 17th surgeon general of the United States, Laureate Professor of Public Health, and

graduated from the University of Arizona in 1998 with a master's degree in public health.]

There's a new initiative, Aegis Consortium, at Health Sciences, that will unite experts from all corners of the human experience to develop pandemic solutions. They will bring domain experts from around the world together to understand what we've learned from this pandemic, making us even more prepared for future health crisis.

When people say, 'Oh, wasn't it hard, intimidating?' — the hard part was seeing people suffer. Certainly, everyone's been touched by this. Losing loved ones. In the mental health aspect, just two years of absolute taxing, grinding stress. It's acute stress, chronic underlying stress, and working remotely rather than being together contributes to it.

Working remotely has made us a little more efficient. I think we're going to continue to do this in the future. It's estimated a third of the workforce will continue to work remotely. I have mixed feelings about that. While I appreciate the efficiency, I think being together — sharing meals, having receptions, in-person meetings — there's a cultural aspect to that that is important. So, I'm a little sad that things will never go back to the way they were.

Looking back, I take an incredible amount of pride in being part of a university that serves our community.

## Looking Forward: Words of Wisdom for New Grads

Remain intellectually curious, and throughout your life, continue to challenge yourself and push yourself into new areas so you can grow emotionally, spiritually and intellectually. Remain hungry.

Try to understand the meaning of life. To me, it includes a service component. Look for opportunities to help people who are less fortunate than you are. This spirit of paying it forward. To be good stewards of the gifts you're given, especially your University of Arizona degree, because you earned it. And most of all, work hard, play hard and have fun!





**STUDYING**

**LONG**



**TERM**

**COVID**





# RECOVERY INITIATIVE

## RESEARCHERS STUDY LONG COVID-19.

BY UNIVERSITY OF ARIZONA HEALTH SCIENCES

Just as the symptoms and severity of COVID-19 vary significantly from person to person, so too does recovery. Many people recover completely in a matter of weeks. Others experience symptoms that linger for months or return after improving — some even develop new symptoms.

Researchers at the University of Arizona Health Sciences are leading a statewide effort to study the long-term effects of COVID-19 with a projected \$9.2 million in first-year funding from the National Institutes of Health. Additional funding based upon enrollment is anticipated in the subsequent years of this four-year award.

UArizona Health Sciences is one of more than 30 research teams across the country participating in the NIH Researching COVID to Enhance Recovery initiative, known as RECOVER, which seeks to understand, treat and prevent what is officially known as “post-acute sequelae of SARS-CoV-2 infection,” or PASC. Long COVID is a form of PASC and refers to symptoms that persist for weeks or months after the acute infection.

“Up to 30% of the people who experienced coronavirus infections may have a hard time recovering, and many of them have not fully recovered up to 90 days later,” says Janko Nikolich-Zugich, professor and chair of the Department of Immunobiology at the UArizona College of Medicine – Tucson and member of the university’s BIO5 Institute.

“What we’re trying to do, along with a consortium of sites across the country, is to figure out why these people are getting sick and how to help them.”

Symptoms of coronavirus infection range from mild to incapacitating. They can include pain, headaches, fatigue, shortness of breath, “brain fog,” chronic cough, sleep disturbances, anxiety, depression and fever.

The research team is recruiting individuals who have experienced or are in the acute phase of COVID-19 including adults from vulnerable, older and underserved populations. Minority races and ethnicities are disproportionately affected by COVID-19, and the team will leverage another statewide study, the NIH Community Engagement Alliance Against COVID-19 Disparities, to engage and enroll members of such populations in the RECOVER study.

All participants will undergo clinical evaluations and diagnostic procedures, answer questionnaires and take detailed exams. The data and samples collected will become part of the larger RECOVER database of tens of thousands of individuals nationwide.

“Local sites will be recruiting people and doing the evaluations,” Nikolich-Zugich said. “But the central, national aspect of this study is critical and important because of the power of numbers.”

*UArizona Health Sciences is one of more than 30 research teams across the country participating in the NIH Researching COVID to Enhance Recovery initiative, known as RECOVER.*



# LIFESAVING DETECTION

**TINY DEVICE PROMISES BIG STRIDES FOR  
EARLIER OVARIAN CANCER DETECTION.**

by Emily Dieckman | Chris Richards photo





**D**ue to a lack of effective screening and diagnostic tools, more than three-fourths of ovarian cancer cases are not found until the cancer is in an advanced stage. As a result, fewer than half of all women with ovarian cancer survive more than five years after diagnosis.

Jennifer Barton, director of the University of Arizona's BIO5 Institute and the Thomas R. Brown Distinguished Chair in Biomedical Engineering, has spent years developing a device small enough to image the fallopian tubes — narrow ducts connecting the uterus to the ovaries — to search for signs of early-stage cancer. Banner — University Medical Center surgeon John Heusinkveld has now used the new imaging device in study participants for the first time, as part of a pilot human trial.

Heusinkveld is using the falloposcope device to image the fallopian tubes of volunteers who are already having their tubes removed for reasons other than cancer. This will allow researchers not only to test the effectiveness of the device but also to establish a baseline range of what normal fallopian tubes should look like. Since September 2021, Heusinkveld has successfully used the falloposcope in four volunteers.

At 0.8 millimeters in diameter, the falloposcope's small size and high resolution are unprecedented.

"It's itty bitty," says Barton, who also holds appointments in optical sciences and medical imaging and is a member of the UArizona Cancer Center. "You just couldn't have fabricated something like this even six, seven years ago."

### **Saving Many Lives, Improving Others**

This year, about 19,880 women in the United States will receive a diagnosis of ovarian cancer, and approximately 12,810 will die from the disease, according to the American Cancer Society. Barton hopes her falloposcope will help save the lives of some women and vastly improve quality of life for others.

With better early-stage detection, women would be able to make more informed decisions about preventive surgeries. Because researchers believe

ovarian cancer usually starts in the fallopian tubes, many physicians recommend that women at risk for ovarian cancer have their ovaries and fallopian tubes removed. Many women opt for the surgery because of its potentially lifesaving benefits, but it thrusts women into surgically induced menopause, with side effects including hot flashes, mood swings, and higher risk of heart and bone disease.

Barton cites one example of a study in which 122 patients who were known carriers of genes that increased their risk for cancer had their fallopian tubes removed as a precaution. Analysis of the tubes after removal showed that only seven of the women were in the process of developing cancer.

"This device could allow us to tell those other 115 women, 'Hey, you are perfectly normal, and we'll come back and check on you every couple of years to make sure everything is OK,'" Barton explains.

Regular falloposcope screenings could mean that even patients who do ultimately opt for the removal procedure could do it later in life — for example, after childbearing years.

In the initial study, the research team hopes to image 20 sets of fallopian tubes before removal. As the surgeon, Heusinkveld will provide feedback to the engineering team about how to make the device easier to use and more effective.

The work to develop a clinical translation of the device has been funded by the U.S. Army since 2018. Barton also is working with Tech Launch Arizona, the UArizona office that commercializes inventions stemming from university research, on strategies to bring it to the marketplace. TLA has filed three patents for technologies behind the device.

While it will likely be several years before the device is FDA approved, manufactured and available on the market, this milestone represents a critical step forward in a decade-long process — and could ultimately change ovarian cancer screening protocols forever.



### **WANT TO LEARN MORE?**

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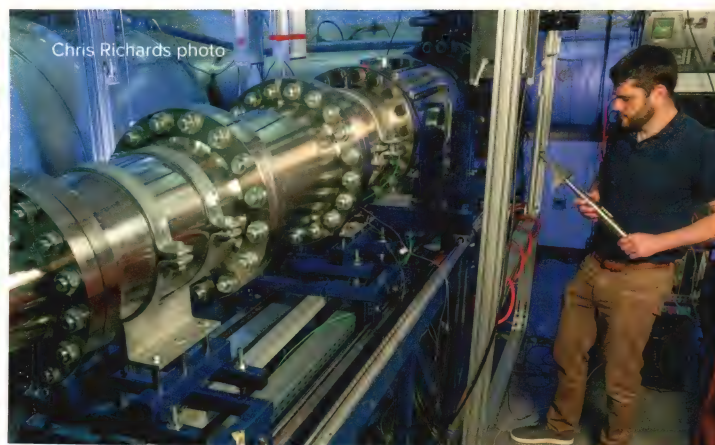
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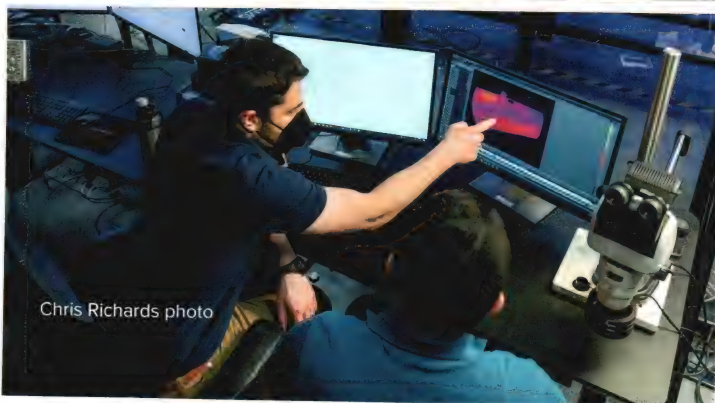




Alex Craig and Jesse Little  
Julius Schlosburg photo



Chris Richards photo



Chris Richards photo

University of Arizona aerospace and mechanical engineering researchers have received \$3.5 million in funding from the state of Arizona's investment in the New Economy Initiative and \$6.5 million in federal support through the Department of Defense's Test Resource Management Center to upgrade hypersonic facilities and related research infrastructure.

The funding positions the university as a leading educational institution in the hypersonics field, says Alex Craig, an assistant professor of aerospace and mechanical engineering.

"We're moving our wind tunnel complex into a more capable realm that you typically don't see at universities, because it's usually reserved for government facilities like NASA," Craig says. "With these upgrades, we'll be able to provide impactful ground testing services to DOD and its contractors, NASA, and emerging private ventures supporting space and commercial travel, while still fulfilling our educational mission."

Wind tunnels blast air at high speeds past fixed objects, helping researchers better understand how similarly shaped objects, such as aircraft and missiles, behave in flight. Wind tunnel speed is represented by Mach number, with Mach 1 being equal to the speed of sound — about 761 mph at sea level.

UArizona is home to two hypersonic facilities and additional wind tunnels that permit testing from Mach 0 to Mach 5.

**'With these upgrades, we'll be able to provide impactful ground testing services to DOD and its contractors, NASA, and emerging private ventures supporting space and commercial travel, while still fulfilling our educational mission.'**

The Boundary-Layer Stability and Transition Laboratory, led by Craig, houses a 15-inch-diameter Mach 5 Ludwig tube, also known as LT5. The Turbulence and Flow Control Laboratory is led by aerospace and mechanical engineering associate professor Jesse Little. Its newest addition is the Arizona Supersonic Wind Tunnel, which currently operates at speeds ranging from Mach 1.75 to Mach 4. The Mach number is changed by adding different nozzle blocks — 12 in total — which weigh about 1,800 pounds each.

The funding will support a suite of upgrades for both UArizona hypersonics facilities, including extending the capacity of the Arizona Supersonic Wind Tunnel to Mach 5 — thereby changing it to the Arizona Polysonic Wind Tunnel. It also will fund a new air supply system, automation capabilities, and a nozzle allowing LT5 to better imitate flight conditions in the Earth's atmosphere.



# SCIENCE GIVES ME HOPE

UArizona paleoclimatologist receives NSF's highest early-career honor

By Mikayla Mace Kelley and Alexis Blue

When Jessica Tierney enrolled in an introductory geology course in college, it sparked her interest in Earth Science, and soon she embarked on a path to studying ancient climates.

"Studying the past is important because it can narrow our projections for what climate will look like at the end of the century, and what sort of impacts humans will face," she says. Using novel modeling techniques combined with paleoclimate data assimilation, she has generated groundbreaking maps of past climate conditions and the system dynamics that produced the conditions. Her research has redefined the understanding of global temperature changes in the geologic past and developed a new quantitative understanding of temperature and climate sensitivity to past levels of carbon dioxide.

Tierney is an associate professor in the Department of Geosciences in the College of Science. In May, she became the first climatologist and the first UArizona researcher to win the National

Science Foundation Alan T. Waterman Award. Tierney is one of three recipients nationwide who will each receive \$1 million over five years to advance their research.

Tierney's research focuses on understanding ancient climate change, including quantifying changes in global temperature, ocean temperature and the water cycle. The goal is to improve our understanding of what the future holds under climate change. She specializes in generating organic geochemical records of paleoclimate, derived from fossil molecules known as biomarkers that are preserved in sediments and rocks.

"The funding from this award will provide key support for my students, postdocs and my lab manager, bolstering our ability to explore new research avenues," Tierney says. "In particular, this award will allow us to explore high-risk, high-reward ideas that have the potential to transform our understanding of past and future climate change."



# Q&A



Chris Richards photo

## TIERNEY CONNECTS THE PAST, PRESENT AND FUTURE — CONCERNS AND HOPES FOR MANAGING CLIMATE CHANGE

**Q:** What is the focus of your climate research?

**A:** My research focuses on understanding climate change in the geological past, so that we can better prepare for the future. Studying past climate change is important, because humans have already raised carbon dioxide levels well above anything seen in documented history, so our short observational record of climate can't tell us what the Earth does when greenhouse gasses are high. We have to go back over 2 million years to find the last time that carbon dioxide levels were this high. Ancient warm climates in particular are helpful, because by studying how the patterns of ocean temperature and rainfall changed during these times, we can better predict what might happen by the end of the century. But how do we study these old climates? Obviously, we don't have a time machine, so we have to rely on clues written in natural archives of climate change. In my lab, we analyze the organic chemical properties of sediments deposited in the deep ocean or in lake basins on land. We have techniques that can tell us how hot or cold or how wet or dry it was. By putting this information together with climate model simulations, we can get a good view of how the Earth's climate behaved.

**Q:** What originally got you excited or worried about climate issues, and where do you think your work can make a difference?

**A:** I got into studying past climates because of my interest in history, and how the study of the past informs our social, political and economic behavior today. Similarly, the Earth's history tells us how the climate system will react in the upcoming decades. However, despite knowing how the Earth can reconfigure itself in warm climates, I was shocked when, in summer of 2021, we saw a series of extreme climate and weather events including heat waves, megafires, record-breaking flood events and powerful hurricanes. For the first time, I felt like, "Wow, this is really happening!" The latest IPCC report has, for the first time, linked extreme events like these to human-caused climate change. It got me thinking about how little we know about extreme events in the past. Because climate extremes happen over days, they are hard to reconstruct from the geological record. However, there are some special archives that capture ancient flood events, for example, and computational power has gone up to the point where we can simulate ancient climates at higher spatial and temporal resolution than ever before. I'm interested in this challenge of understanding paleoweather, which would directly connect to climate changes that are happening to people all around the world, right now.

**Q:** What's one thing you want everyone to understand about climate change?

**A:** I want to encourage everyone to stay hopeful. Climate change is a huge challenge to address, and it can be overwhelming to process that and also figure out where you fit in. However, humans got us into this, and we can get ourselves out of it as well. There is a lot of talk in the media about warming levels, like 1.5 degrees Celsius for example, and many people are worried about what happens if we pass those. It is important to know that there isn't a single threshold out there beyond which there is no point of return. Things get incrementally worse as you keep warming, but we can stop at any time and avoid the worst case scenarios. The problem ultimately has to be addressed at a community and government level, but as an individual there are a lot of things you can do, like get involved in local efforts to improve access to renewable energy – like community solar projects – or public transportation. It's also important to vote, so that candidates – from local to national – that have climate change on their agenda are in positions of power. We definitely have the technology to limit climate change, so I'm optimistic. Science gives me hope.



Natalie Benton  
Chris Richards photos

# WILDCAT GAMERS

Esports program builds steam and community. | By Katy Smith



**P**harmaceutical sciences student Natalie Benton is a member of the University of Arizona's first varsity esports team for Rocket League, a video game she's been playing since it came out seven years ago.

Gaming has always been a big part of Benton's life. "I would literally run home from school and hop online to play games with my friends. I'm very excited to take my hobby to the next level," she says.

Benton is among nearly 60 students who've joined one of seven varsity teams since the university launched an official competitive esports program in March 2021. A director of esports, Ian Escalante, joined the staff of the Dean of Students Office in November. The Student Union Memorial Center now boasts an esports arena where the teams practice and anyone else is welcome to play games for a fee.

Benton and Escalante believe esports at UArizona can become much bigger. For Benton, part of that means inspiring other women to join her in collegiate esports, currently a male-dominated environment.

Online and in-person gaming spaces, she says, are discouraging for women. "There are women and people out there who are highly skilled, but it takes a lot to make the jump, and some organizations and colleges aren't ready to facilitate that community. I'm putting myself in the shoes of a varsity player, and I hope they can make the jump with me."

A recent study conducted by esports organization Evil Geniuses found that 44% of American gamers who identify as female reported experiencing gender discrimination.

Fostering an inclusive environment is one of Escalante's top priorities, he says.

"What I'm super excited about, truly why I came here, is because I see collegiate esports as a way to build out a community for students that haven't found it before," Escalante says. "It's a way for students to feel like they belong and have a space to explore their passions."

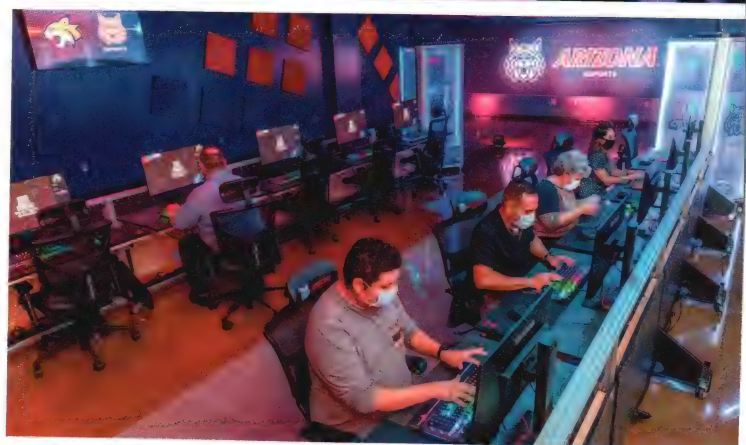
Opportunities in the current gaming world are elusive for women because it's a noninclusive space in many ways, Escalante says.

"We can be that difference, because within our community we can say, 'Hey, we are here for all gamers.' We've decided that our teams at Arizona are going to be reflective of our student body or not exist at all."

Another priority is establishing scholarships for the players as well as internship and work-study positions in roles such as team manager for students who want to develop leadership skills or hope to work in the growing industry. Insider Intelligence projects that monthly esports viewers will increase to 29.6 million this year, up 11.5% from 2021, and the numbers will continue to grow.

Escalante envisions building a robust esports community with ties to academics, alumni, fans and corporate partners. With that level of connection, he says, esports will become a powerful student recruitment and retention tool for the university.

"The way to keep students is to keep them engaged and involved. Esports does that in ways that many other programs cannot. It's an amazing opportunity that we have here. I definitely have big plans."



## UARIZONA ESPORTS

The games played by the university's official varsity teams are Counter-Strike: Global Offensive (CS:GO), Valorant, Super Smash Bros. Ultimate, Rocket League, League of Legends, Tom Clancy's Rainbow Six Siege and Overwatch.

Unlike traditional sports, which are administered at the collegiate level by the NCAA, esports currently lacks a singular governing body. Each tournament is unique and unconnected to other competitions.

UArizona students also play esports as part of the Esports and Gaming student organization recognized by the Associated Students of the University of Arizona.



# W O N





# DEER MAKES US

In 2019, the University of Arizona rolled out a new brand, Wonder, rooted in the university's purpose and values and designed to capture the spirit of curiosity that powers Wildcat creativity and ingenuity. Read on for the myriad ways UArizona faculty, staff, students and alumni discover what wonder means to them and how it inspires their daily lives and work.





Photos provided by i4J

**E**ach year, millions of Americans face the civil court system with slim chances for true justice, either because they can't afford a lawyer or due to technological hurdles blocking their path. The costs to them — and to society — can be significant.

That's where Innovation for Justice, or i4J, comes in. Established in 2018 at the University of Arizona's James E. Rogers College of Law, it's the nation's first cross-institution, cross-jurisdictional legal innovation lab. By examining civil justice issues through a design- and systems-thinking lens, i4J identifies barriers to access — such as a cumbersome self-service website or gaps in legal services meant to assist domestic violence victims.

In four years, i4J has drawn over 255 passionate students from disciplines ranging from law and business to public health.

Recently, i4J grew to include a partnership with the University of Utah's David Eccles School of Business, where it helps develop pilot programs in that state, such as one that trains nonprofit legal advocates to serve people who cannot afford lawyers. It's all about making reforms that close the justice gap and meet the civil legal needs of community members.

"There's an enormous access-to-justice problem in this country," says i4J director Stacy Butler. "There are just not enough resources being allocated. And the resources that are being allocated are pretty much focused on direct service — on putting out fires."

Those "fires" include immediate, urgent civil legal needs of those who seek legal help, such as tenants who have received an eviction complaint and are five days away from a court hearing on the eviction. A traditional direct service approach to serving those with civil legal needs includes adding more legal aid attorneys across the country — necessary, but never enough. "There are not a lot of resources," Butler says, "for trying to think systemically, through an innovation lens, about why we have these problems in the first place or what we're going to do about them."

The Cost of Eviction Calculator is one example of how i4J helps uncover systemic problems and inform policymakers. The free online tool estimates the downstream community costs of providing things like emergency shelter, emergency medical care and child welfare services to people evicted — costs that could total nearly \$130 billion for the country as a whole.

In another project, i4J's research into debt collection shows that while debt collection lawsuits are the most common type of civil litigation in the U.S., 98% of debt collection defendants do not have legal representation.

And a year-long pilot project demonstrated the effectiveness of using legal advocates instead of lawyers to assist victims of domestic violence. Thanks to a collaboration among i4J, the Arizona Supreme Court and the Emerge! Center Against Domestic Abuse, a new tier of legal professionals can now provide legal advice.





That addresses a huge need: some 97% of low-income domestic violence and sexual assault survivors experienced a civil legal problem. The legal advocate concept has since expanded to include people facing medical-debt issues and people experiencing housing instability.

These gaps in legal services are relatively obvious. Other gaps in the system are harder to unearth without systems- and design-thinking analysis. Sarah Mauet directs i4J's UX4Justice Initiative. Her classes utilize UX (user experience research and design) methodologies as well as design- and systems-thinking approaches to evaluate and redesign justice sector technologies.

This approach has already yielded results in Utah, where it uncovered both high-tech and low-tech reasons why people were having trouble both accessing and using the state's online self-help dispute resolution platform.

"We found that the vast majority of users struggled to make the transition from a paper document to the online tool because the URL was 50-plus characters long — and case sensitive," says Mauet. "That was an absolute barrier. Many Americans can't afford computers or internet service, so they rely on smartphones to access the internet."

The remedy: Utah needed to update its URL to make it "short, human-readable and simple," Mauet says. "And to add QR codes, so users could just snap a picture on their phone and visit the website automatically."

That kind of problem-solving is what drew Gabriela Elizondo-Craig '18 '21 to i4J, where she's now a post-graduate fellow after earning a bachelor's in public health and a law degree. She says her public health studies opened her eyes to the effects policy can have on people's lives. Now, she's gratified by i4J's emphasis on letting people explain what they need and then translating that need into policy reform.

"It's how we produce solutions that are really meaningful for the community," she says, "rather than imposing what we think would be the best thing."

Jacob Wassenaar, a current student, would agree. Before attending the UArizona College of Law, he taught in an elementary school in an impoverished neighborhood, where he saw the lack-of-access problem firsthand.

"There's a very significant justice gap," Wassenaar says. "So many Americans are unable to receive basic legal assistance, and it's a very significant problem for our entire legal system. Innovation for Justice keys in on how to close those gaps."

— Tim Vanderpool







# WONDER MAKES US EXPLORE

**W**henver Marcia Rieke points her telescope into her favorite part of the night sky, she looks toward the constellation Sagittarius. What she is looking for is, well, nothing. A void. In that absence of light is a supermassive black hole — our galactic center.

While you are reading this, the James Webb Space Telescope is orbiting the sun, having successfully launched, deployed from its rocket and traveled one million miles from Earth over the period of 30 days. It has taken its first image.

It only took 20 years to get to this point.

But when Arizona Alumni Magazine interviewed Marcia Rieke in October 2021, she told us, “As we speak, they’re probably taking the telescope off the ship.” It had just completed a 16-day journey at sea, landing in French Guiana. This July, after the deployment sequence is complete and everything is aligned and calibrated, Rieke’s team can start observing.

“I’m kind of all over the place,” jokes Rieke when asked where she wants to point the Webb telescope. “I want to find the very first galaxies and understand how galaxies have changed over time since they formed.”

After Hubble, scientists wanted a greater telescope for infrared astronomy, specifically to look at the earliest galaxies. In all our space exploration, we have yet to see those first galaxies and stars of the universe, which formed about 100 to 250 million

years after the Big Bang. These objects are so distant that their light shifts into red wavelengths our eyes can’t see.

That is what the Webb Space Telescope’s Near Infrared Camera, or NIRCam, is designed to capture. “We’re spending almost half of our 900 [observation hours during the Webb telescope’s first year] looking for the most distant galaxies,” says Rieke, NIRCam’s principal investigator.

Rieke first became involved with the Webb telescope in 1998, when NASA convened an ad hoc working group to outline what the mission should be. “What should the telescope look like? What kinds of scientific instruments should it have? What were the key science goals?” says Rieke.

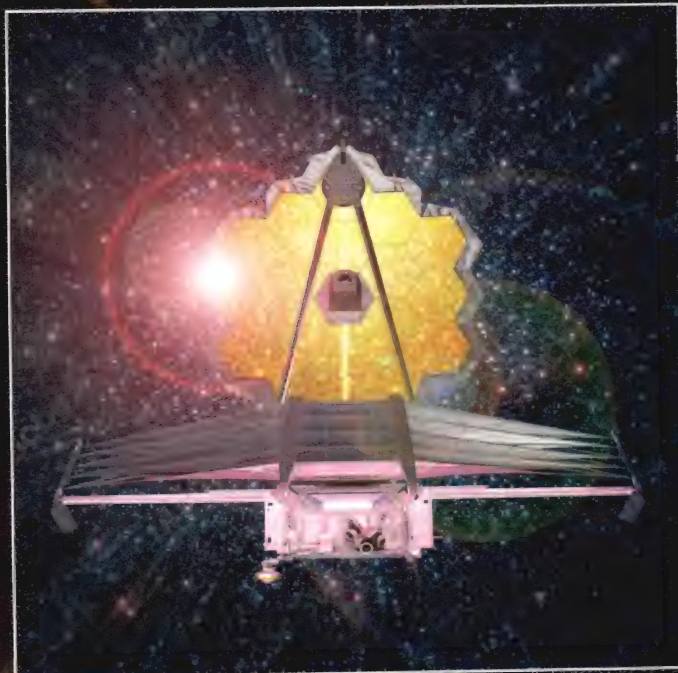
In 2001, she assumed the role of principal investigator for a team that included scientists from not only the University of Arizona but also Lockheed Martin, Université de Montréal, NASA Ames, Caltech and many others. Together, they won the proposal to build, test and — finally — operate the NIRCam.

“I had to translate between what the engineers were thinking and what the scientists were thinking about,” Rieke says. She was responsible for meeting requirements and making sure that the NIRCam was feasible to build.

It was the chance to study infrared that had brought her to Arizona after she received her PhD from the Massachusetts Institute of Technology in 1976.



'I want  
to find the  
very first  
galaxies and  
understand  
how galaxies  
have changed  
over time  
since they  
formed.'



Artist conception of the James Webb Space Telescope. A tennis-court-size shield will keep the extremely sensitive infrared detection instruments out of the sun's rays. / Adobe Stock photo



Marcia and George Rieke / Chris Richards photo



"When I was an undergraduate, infrared astronomy was not a fully formed section of astronomy yet. It wasn't until I was a graduate student that there really was a subfield called 'infrared astronomy.'"

Eminent astronomer and founder of the UArizona Lunar and Planetary Laboratory Gerard Kuiper became interested in infrared astronomy in the 1960s. He hired Harold Johnson and Frank Low, who would become an early leader in the new field. Low and Johnson hired George Rieke, whose list of contributions to infrared technology, theory, observation and instrumentation is extensive.

George Rieke hired Marcia — then Marcia Lebofsky — for postdoctoral research. "I knew who he was, because he was one of the founding infrared astronomers. He was pretty famous already," she says.

At Arizona, they fell in love. "We got married in Tucson at a church on the east side. For the reception, we decided we didn't want a traditional wedding cake, so we had baklava instead." Now married for 38 years, they work in offices about 100 feet apart. "We've worked together so long that though we like to talk about work in detail, we can also guess what the other one's going to do or say."

While Marcia and George worked together on the Spitzer Space Telescope and the Webb Space Telescope, Marcia also worked on the infrared camera on the Hubble Telescope, which might have given her the edge as a candidate to be the PI for Webb.

UAirizona has remained a leader in the field of infrared astronomy since Low's work in the 1960s. Infrared is best done where there are few water molecules to interfere with the infrared light coming to down to Earth, so Tucson's dry climate is a boon. Beyond the climate, telescopes are what distinguish UArizona from other schools that study infrared astronomy.

The university's ground-based telescopes are Marcia Rieke's favorite places to visit in Tucson. "The observers' dormitory is kind of like a cabin in the woods," she says of Catalina Station, home to the Kuiper and CSS Schmidt telescopes. "In terms of ambiance, the 61-inch telescope that the university has on Mount Bigelow is a very, very pleasant place to go."

**'We might be able to see what kind of molecules would be in the exoplanet's atmosphere. That's pretty exciting, because we can potentially find an atmosphere whose composition would be like Earth's.'**

When Rieke isn't looking through the lens of a telescope, she's often looking through a camera's viewfinder. Her home and office walls are covered with her framed photography. Her Zoom background during our interview was a photo she took from her backyard of a lunar eclipse in a rose quartz sky over Thimble Peak in Tucson's Santa Catalina range.

Besides looking for the universe's earliest galaxies, another goal for the NIRCам will be looking at exoplanets — the thousands of planets just outside the solar system. "I'm really excited to learn about what's in an exoplanet atmosphere, because it just seems so remarkable that not only do we now know about planets around other stars, but we can actually study their composition, in a way," Rieke says.

The NIRCам is one of four scientific instruments that make the Webb telescope the most powerful infrared telescope to date. Astronomers from all over the world will use the telescope. In its first year, 7,000 observation hours are planned in total. UArizona will get 900 hours as a reward for the contributions Rieke and her team made to the development of the telescope.

Data from the telescope could lead to answering questions about the origins of the universe and whether other planets in our galaxy are habitable. Are we alone? Where did we come from? Right here in Tucson, we might discover clues to the answers.

— Patri Hadad



**WANT TO  
LEARN MORE?**

Scan barcode to watch  
Marcia Rieke's WONDER video.





# WONDER MAKES US CREATE

Woodlin Latocki illustration



Woodlin Latocki had only just begun to dip her toes into the world of animation when she was approached to animate part of the University of Arizona Wonder campaign.

Latocki, a School of Art MFA student, considers herself a “pen to paper” kind of artist, but she began dabbling with animation for fun when she was an undergraduate.

“I had always been a fan of animation,” Latocki says. “In the beginning, I went in with my dinky little tablet and digitally colored, added lighting and just enjoyed playing around.”

“Playing” is how Latocki fell into the professional world of animation. It was a happy accident.

“I enrolled in an animation class just kind of for fun and to experiment with it,” she says. Then Latocki’s instructor asked her if she would be interested in doing a high-profile animation project for the university’s Wonder campaign.

“I said ‘yes!’”

The UArizona Wonder campaign explores what drives ambition and curiosity within us. Through storytelling, it shares what wonder means to our community. In the Wonder video Latocki worked on, viewers learn the story of School of Dance alumnus Taylor Bradley ’15.

Animating Bradley proved to be a challenge for Latocki, whose artistic endeavors typically lie in the realm of place and environment.

“It is a stark contrast from what I do in my own work,” Latocki says. “My work is usually void of figures.” In working on the Bradley animation, she says, she had to focus on the motion and figure of the dancer, his intricate and advanced movements.

It was anything but simple.

“It was certainly a process of

learning by doing,” Latocki says. She was introduced to new techniques and technology, including rotoscoping, an animation process that involves drawing frames over video footage to create realistic action. She worked tirelessly on rotoscoping Bradley’s dance video to bring her animation to life.

She also learned to perfect her drawing technique on an iPad. “It’s all about the pressure and the angle of your pencil,” Latocki says. “It took a little bit of getting used to, but it is pretty true to your typical pen-on-paper process.”

While it may seem like a completely different branch of artistry, animation is rooted in the same kind of art that drawing is. Latocki says it takes drawing to another level with the language of motion.

And Latocki says that anyone can get involved in animation. All it takes is the initial jump.


“Jump in. Open up Photoshop, open your frame timeline and just start playing around with it,” she says. “Don’t get stuck in the mindset that there is a perfect way to go about animation, because it is just one of those mediums where every artist has their own techniques. It’s fun to find your own.”

Latocki hopes Bradley’s story challenges viewers to define wonder for themselves.

“The way that Taylor describes wonder is something that I also latched on to,” she says. “The concept of trusting the unknown in your creative journey, your professional journey and your journey as a person.”

— Taylor Maresca



A shirtless male dancer with light brown hair is captured in a dynamic, mid-air pose against a solid black background. He is leaning back, with his right arm extended upwards and his left arm reaching out to the side. His legs are spread wide, and his feet are visible at the bottom of the frame. The lighting highlights the contours of his muscular body.

Terence O'Donnell photo

# WONDER MAKES US MOVE



**T**aylor Bradley '15 fell in love with dance when he was 9 years old.

"I never really had that crisis of 'What do I do? Where do I go?' I was like, 'I'm going to be a dancer. Yeah, it's going to happen.'"

Growing up in Atlanta, he says, a lot of his friends didn't understand.

"It was uncommon for boys to dance in the South. Everybody played football and sports — but it was a no-brainer for me."

Encouraged by his parents, he looked for a university that could help him on his path to becoming a professional dancer.

The University of Arizona was a top choice. Bradley has family history in the state: His great-grandmother, he says, was one of the last people born with a territorial birth certificate before Arizona became a state in 1912. And his Wildcat roots run similarly deep — four members of his family had attended UArizona.

He had planned to audition at Julliard, New York University and Point Park University in Pittsburgh. But his UArizona audition was his first and last. When he visited, he remembers, he said, "Cancel the rest. I don't need to go anywhere else."

"I instantly fell in love."

And the love didn't fade after graduation. "U of A has such a big, big part of my heart. Anytime I see a U of A bumper sticker or anything with a block 'A,' I'm like, 'Oh my gosh, I want to be your best friend.'"

"My Wildcat experience is more than just, 'I went to college. I went to dance school.' ... I'm a Wildcat for life. I went to the University of Arizona, and it helped shape who I am today."

As a freshman, Bradley was already being cast in great works, like a medley of excerpts from "Chicago" titled "A Chicago Suite," set by the late Ann Reinking and Gary Chryst.

"For me to be 18 and people say, 'Hey, I believe in you,' 'Yep, you have potential' — the fire that was already lit literally combusted into fireworks."

"The 'Chicago Suite' proved to me that I love jazz, I love entertaining."

That love, he says, is why he moved to Las Vegas after graduation. Today, he dances for Cirque du Soleil. The Beatles-themed show "Love" was his first performance. "It's peace and love all day long, right? It's hard to leave work upset when that's what you do for hours."

His journey to landing the gig of his dreams reflects UArizona's brand concept, Wonder.

"When you think of wonder — you're watching fireworks, you're in awe. That feeling resonates so clearly with me. But it took me six and a half years to get into Cirque du Soleil," he says.

Competition for Cirque du Soleil — a dance, acrobatic, and globally renowned production company — is intense.

Bradley's first audition was in Salt Lake City with 700 dancers vying for just 20 spots. After nine private auditions, he moved on to another open call with 900 dancers in Las Vegas.

"They narrowed it down to 15," he says. "Fast forward, I finally got the call. I remember I had to pull over on the highway because I couldn't stop hyperventilating. I was ear-to-ear grin."

When he opened with Cirque du Soleil, he says, "I started crying on stage. We're doing this big finale to 'All You Need is Love,' and it's raining confetti, and the theater's in the round, and I'm on stage with a few other Wildcat alumni. We've been together now for 10 years, finally sharing this moment on stage, and I just broke down — happy, ugly cry. Makeup's coming down my face."

To him, the moment was filled with wonder. "Realizing you can do it, and there's no limit to your abilities if you just keep that wonder — keep it in your heart and keep your dream in laser focus."

Bradley acknowledges that wonder can also have a negative aspect if risks and unpredictability lead to anxiety. For example, he says, during the song "Come Together" in the "Love" show, the dancers perform overhead lifts and other partner moves on darkly lit runways elevated 20 feet above the rest of the stage. "That alone is a wonder in anxiety," he says.

"You just tell yourself, 'Don't fall in the 20-foot hole or put your partner down in the wrong spot' — but yay! The joys of live theater!"

His experiences at UArizona, he says, helped him learn how to get past anxious moments. "You're going to trip and fall," he says.

Most recently he returned to the stage after suffering a foot injury while dancing in "Come Together."

"You're going to get injured. And you either let that get to you or you keep going, performing until the curtain goes down and you take your bow."

Otherwise, he says, "Scary things happen if you get stuck in that negative sense of wonder."

On the positive side, Bradley connects wonder to the idea of flow. "The endorphin rush: You're sweating and in the zone, and tired, but then you hit this wall — in a good way — on top of the artistry, on top of self-expression, on top of moving your body."

"There's no greater feeling in the world. There's no higher sense of wonder than getting lost in your own art and craft and passion and sharing that with people in a vulnerable way that you're confident in. You're vulnerable in putting yourself out there, but you're so fine with it."

"You get to bring joy to people — that's the perfect storm."

He's trusted that sense of wonder his entire life, he says. "And it's landed me in the happiest version of myself."

— Sarah Beaudry



# RESIL





# I E N C E

The University of Arizona has formed ***the Arizona Institutes for Resilience: Solutions for the Environment and Society***, or AIR, to better understand environmental challenges and to develop solutions that tangibly improve people's resilience in the wake of environmental shocks, including those due to climate change.

AIR was formed by merging the university's Institute for Energy Solutions, Water and Energy Sustainable Technology Center and the Desert Laboratory on Tumamoc Hill with programs previously housed in the Institute of the Environment. Using expertise across campus, the new institute's work is aimed at preparing people for a low-carbon, environmentally sustainable and socially just world, through a three-pronged approach: research, education and real-world implementation.

"University of Arizona faculty and student researchers affiliated with AIR are doing cutting-edge environmental research, working alongside community partners to give decision-makers the most forward-thinking strategies to combat the climate crisis and other environmental challenges," says James Buizer, AIR interim director and professor in the School of Natural Resources and the Environment. "AIR is greater than just the units within the institute; it is a conduit to and from environmental enterprises all across campus."

**READ ON TO LEARN MORE ABOUT UARIZONA'S RESILIENCE PROGRAMS AND PEOPLE.**

Adobe Stock photo





Chris Richards photo

# **PARTNERSHIPS**

*for a Better Future*

by Kim Stoll



Growing up on the Navajo Nation, Karletta Chief '07 saw firsthand the environmental impacts of mining on her community. Her family was forced to move off their land due to health hazards posed by its proximity to the Black Mesa strip mine. And her grandfather lost 100 head of sheep — his livelihood — when water was contaminated by a spill from the mine.

Many in her community shared the same challenges.

"I had questions around environmental degradation," she says. "I wondered why my family didn't have running water or electricity. Yet near us, land was being destroyed for coal to produce energy for cities like Las Vegas, LA and Phoenix and brown water was being used to transfer the pulverized coal."

From a young age, she knew water was important, and, she says, she wanted to understand where it came from. She often wondered, "How do we get clean drinking water? How could it be possible for my community to have safe drinking water for ourselves and our livestock?"

These questions still drive her today. Chief, who is Diné, is now a University of Arizona Distinguished Outreach Professor of environmental science in the College of Agriculture and Life Sciences. Through her research and outreach, she partners with Native communities to address environmental challenges and water insecurities facing tribes.

Chief recalls that even as a young child, she loved math and science. "All my experiences and passion for STEM came together as I pursued my degree in environmental engineering," she says.

Chief earned bachelor's and master's degrees in civil and environmental engineering at Stanford University and returned to her home state to earn a doctorate in hydrology and water sources from UArizona in 2003.

"I came back to UArizona as faculty because of the university's land grant mission to bridge university research and knowledge with communities to address the pressing challenges they face," she says. "Working with communities in that way is amazing, and it's what made me want to work here versus other institutions."

In 2021, Chief was named director of UArizona's new Indigenous Resilience Center. Her charge is to partner with Native Nations, alongside the university's Arizona Institutes for Resilient Environments and Societies and Agnese Nelms Haury Program in Environment and Social Justice. Faculty and staff work with tribal leaders and governments to co-design community-driven solutions for solar energy, off-grid water resources, food resources, Native plant adaptation and health.

"The Indigenous Resilience Center is the University of Arizona's commitment to giving back to local tribes who have stewarded this land for millennia. Tribes have endured and sacrificed so much in terms of land loss and social and environmental impacts, much at the hand of the United States," Chief says.

"Universities have benefited from this through their physical infrastructure and have a responsibility to be a bridge — to ethically address the challenges those communities face in ways that build trust and transparency."



Indige-FEWS team hikes with Diné College students at Canyon de Chelly on Navajo Nation.





Chief collects a sediment core sample from a river to measure for contaminants.

## KARLETTA CHIEF SHARES HER PERSPECTIVE *WHAT'S NEXT IN PARTNERING WITH TRIBAL LEADERS*

### **What role can tribal communities play in the university's environmental research?**

Tribal communities should be involved in driving the research questions, co-designing the research approach and participating in the collection of data. They should be co-authors of the research that comes out of it, so that they are fully benefitting. It can no longer be the old practice of "helicopter research" where university researchers come in, do work without any tribal approvals, and then leave, never to return to give that information back. We need to engage with tribal communities in ways that build trust, and that's what we're doing today through partnerships like the Indigenous Resilience Center.

### **How are water issues culturally unique for the Navajo Nation?**

There is a deep connection that Native Americans in general have with water and the natural environment. It's important to their spirituality, to their religion, to their livelihoods. I think that's often lost in the conversation about water; it's not only about the utilitarian uses but also the spiritual uses of water.

### **How does the Nation approach sustainability?**

I see the Navajo Nation as already sustainably using water because water is not easily accessible. People there are already conserving water, and their use is very minimal. The challenges relate to access to clean water, so what we're working on right now is off-grid, solar-powered solutions.

### **What is innovative about your work with the Nation?**

Because Navajo Nation is so big, central infrastructure will never be possible; the people don't live in clustered housing

areas like cities, and they likely never will because of their culture, livelihoods and their connection to their specific ancestral land. Our team is working toward innovative off-grid solutions and [is] piloting these units in the communities and asking for their input.

### **What is the role of the next generation in creating solutions?**

Through my work, I've realized how big the desire is for Native students to work with their own communities. But both Native and non-Native students need training with things like how to work with tribal leaders, how to get research approved and how to navigate cultural protocols.

### **How do you train students to work with tribes?**

During the Gold King Mine spill research project, I ended up doing a lot of training I didn't expect, pointing students to resources about tribal consultation and decolonizing methodologies. Building off this project, we created a training program, [Indigenous Food, Energy & Water Security and Sovereignty, or] Indige-FEWS, that would train students across disciplines on intercultural awareness and provide transdisciplinary experiences to address challenges related to food, energy and water. Today, we are developing ways to institutionalize that training. There's a lot of support available at UArizona for students who want to work with Indigenous communities.

The students I meet every day motivate me with how committed they are to working with communities. I want to be able to support their passions and goals and show them that they can also have a connection with the communities they do research in.



*‘Tribes have endured and sacrificed so much in terms of land loss and social and environmental impacts, much at the hand of the United States.*

*Universities have benefitted from this through their physical infrastructure and have a responsibility to be a bridge, to ethically address the challenges those communities face in ways that build trust and transparency.’*



### **WANT TO LEARN MORE?**

Scan barcode to watch a video interview with UArizona President Robert C. Robbins and Karletta Chief.



Indige-FEWS team hikes to the bottom of Canyon de Chelly on Navajo Nation.




Indige-FEWS trainees visit a hoop house at Diné College on Navajo Nation.



Trainee Christopher Yazzie (Diné) tests water on Navajo Nation.





# TREE TALK

*An unprecedented drought experiment at Biosphere 2 highlights nature's surprising resilience.*

By Rosemary Brandt | Chris Richards photo

Researchers at Biosphere 2

To paint a clearer picture of how global climate change will affect Earth's ecosystems, a team of 80 international research scientists set out to complete an unparalleled experiment: forcing the world's only enclosed rainforest — housed in the University of Arizona's Biosphere 2 — through a four-month-long controlled drought and recovery.

Their findings, published in the journal *Science*, revealed a roughly 70% drop in the rainforest's carbon storage — speaking to concerns about forests' ability to capture and store carbon dioxide from the atmosphere as climate change progresses. However, an intricate web of water-use strategies and soil interactions was found to support the forest's stability in the face of extreme drought.

"The forest was, in some ways, surprisingly resilient to the drought," says Laura Meredith, one of three leads on the

project and an assistant professor in the School of Natural Resources and the Environment in the College of Agriculture and Life Sciences.

The glass-enclosed rainforest at Biosphere 2, which houses 90 plant species, allowed the researchers to simulate a full ecosystem drought.

The experiment, called Water, Atmosphere and Life Dynamics — or WALD, which is German for "forest" — set out to capture every bit of data possible throughout the drought and rewet process. Nearly two miles of Teflon tubing and more than 133 sensors were placed throughout the roughly three-acre rainforest to simultaneously collect measurements on everything from carbon pools in the atmosphere and vegetation to microbiome and deep-water soil processes.

"We used stable isotopes to trace the movement of carbon and water through the ecosystem under normal conditions





and severe drought, which revealed surprising plant-ecosystem interactions,” Meredith says.

“Importantly, individual plants did not all respond to drought in the same way. Some were highly drought sensitive and quickly slowed their critical carbon and water cycling to play it safe, while others were more tolerant of drought and maintained their function even under more risky drought conditions.”

In their experiment, the researchers categorized the reactions of both large canopy trees and undergrowth species by their drought tolerance and drought sensitivity.

“We observed one of the most astonishing reactions between the large drought-tolerant and drought-sensitive trees,” said Christiane Werner, a professor of ecosystem physiology at Germany’s University of Freiburg and one of the project leads.

Large, drought-sensitive trees generally consume the most water, especially from the topsoil. As the topsoil dried out early in the drought, these trees suffered the fastest and most severely from the lack of water, says Werner. The researchers assumed the drought-sensitive trees would immediately tap into the water resources in the deep soil.

“Instead, they drastically reduced their water consumption and only resorted to their deep-water reserves under very extreme drought,” Werner says. “In this way, they conserved the deep-lying water reserves for as long as possible.”

Large, drought-tolerant trees held onto their canopy leaves the longest, providing continued shade and sparing the undergrowth from further topsoil dehydration.

“Having a diversity of drought responses within the plants helped maintain greater carbon and water cycling functions of the entire ecosystem, both during the fullest extent of drought, as well as for quickly responding to the renewed availability of moisture with the arrival of rain,” Meredith says.

While carbon storage in the forest system decreased significantly under increasing drought stress, plants released more volatile organic compounds, or VOCs, which are involved in communication and signaling among soil microbes and plants. VOCs are particularly important in how plants deal with stress.

According to the results, there was a cascade of emissions of different VOCs, including isoprene, hexanal and monoterpenes, the last of which can support cloud condensation and rain formation and may serve as a protective mechanism against drought.

While plants were strong emitters of VOCs to the atmosphere, microbial life in the soil intercepted some of those compounds, mitigating the total amount that would be released to the atmosphere above a tropical rainforest.

“This counterbalancing role of soil microbes to plant VOC emissions persisted, even under severe drought, indicating that we need to take the role of microbial activity on atmospheric processes better into account,” Meredith says.

The WALD research team continues to work through the data from the experiment and has now turned to the ecosystem’s smallest scale, microbial life. The team aims to describe mechanisms of carbon and water cycling at these small scales by capturing the genomic profiles of soil and root microbiomes as well as their metabolomic profiles — analyses of the products of cell metabolisms.

“Experimental ecosystems, like what we have at Biosphere 2, allow researchers to understand the holistic response of an entire ecosystem to stress,” Meredith says. “As we work to understand and predict ecosystem function in response to global change, we have to consider plant functional groups and their interactions with soils and the atmosphere in both observational and modeling studies.”





## **HOW TREES TELL STORIES**

### *Photography as Art and Science*

By Ford Burkhart

George A. Tice  
Tree #14, New York, 1965  
Gelatin silver print  
11.3 x 11.1 cm  
Center for Creative Photography, University of Arizona: Gift of the artist  
© George A. Tice



**A**nsel Adams' redwoods almost steal the show at the University of Arizona Center for Creative Photography's most recent exhibition, "Trees Stir in Their Leaves." But they have plenty of competition in the powerful exhibit focusing on science, art and trees running through July 23.

With more than 75 images and other objects, it fills the CCP's new space — the Alice Chaiten Baker Interdisciplinary Gallery, located off the center's main lobby.

The show focuses on how we can learn from trees — some so ancient, they were alive when the pyramids were built in Egypt.

"To find the wealth of information trees have to share, we must simply learn how to look," says Valerie Trouet, a professor in the UArizona Laboratory of Tree-Ring Research (LTRR), which is a partner in the event. Her book about dendrochronology, or the study of tree rings, is called "Tree Story." Published in 2020, it is now in paperback.

The exhibit reveals for the first time the laboratory's own photo collection from a century of work across the globe, documenting how to learn from the interior patterns called tree rings.

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A visit to the three branches of this event — the exhibit at the CCP, the Arboretum's walking tour and the LTRR, which recently resumed its public tours — offers in-depth looks at Arizona science and arts.

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It was a delight for CCP co-curator, Meg Jackson Fox, to discover that the LTRR had photo treasures of its own. "We looked at hundreds of their images," she says. Twenty-one images — depicting species from sequoias to Chilean cedars — landed in the show. Some were digitized from old Kodachrome slides, lantern slides or postcards from the 1930s.

A third event partner is the UArizona Arboretum, which offers a complementary self-guided tree tour with 15 stops on campus to examine trees and their cousins. It's called

Photo Walks Around the World and includes three "walks" focusing on species from different geographic regions: the Southwestern U.S., South America and the Mediterranean. Printable guides are available via links on the Arboretum's website.

The walking tour begins near CCP with the medicinal Mexican fencepost cactus. Along the tour, you'll meet a cork oak, a queen palm and the palo borracho (or "drunken stick"), lovely despite its odd name.

The Arboretum's director, Tanya Quist, explains, "The experience for participants aims to renew their spirits through beauty, enlighten their minds through science and deepen their love of the university through the campus living collections."

The walks were created in response to the interdisciplinary exhibit by CCP and LTRR, Quist says, "as a way to physically connect the two facilities on opposite sides of campus."

Back at the CCP, three examples illustrate the scope of the show:

A twisted apple tree photographed in Chernobyl starkly recalls the damage from the nuclear disaster there in 1986 and reminds viewers that not all the victims were human.

A slice of wood tells the saddest of all tree stories: It was part of the Prometheus, a bristlecone pine in Nevada that was nearly 5,000 years old when it was inadvertently cut down about 70 years ago. It was the oldest tree ever dated, and this cross section helps tell the story of dendrochronology.

And a stunning image of an Emory oak tree in rural Arizona, photographed by Barbara Bosworth in 2001 as it spread its limbs wide to shade a space seemingly as big as a tennis court, invites viewers to reflect on the relationships between people and landscapes.

The science side of the show offers a rare glimpse of a century-old analog computer, made by astronomer and LTRR founder A. E. Douglas in 1913. The device — about 16 feet long, with chains, gears, lenses and mirrors — linked up solar cycles with tree rings to test his theories that sun events might affect climate.

"And this is how the science of tree rings was born, here at the University of Arizona," comments Charlotte Pearson, of the LTRR faculty. "He was right."

Visits to the three branches of this event — the exhibit at the CCP, the Arboretum's walking tour and the LTRR, which recently resumed its public tours — offer in-depth looks at Arizona science and arts.

"It's the first time to bring into conversation the collections of three University gems, and our communities will have the opportunity to experience a unique layering of trees, through science and art and the stories between the them," says Jackson Fox.

Charlotte Pearson of LTRR adds, "It's a celebration of the arts and sciences and the power of these two combined approaches."





# BRINGING PEOPLE TOGETHER

BY KIM STOLL

**M**aribel Alvarez '03 talks about the importance of folklife with an infectious passion and warmth. "I wish people would abandon the notion that folklore is a relic of the past. It is our everyday," she says. Alvarez, the Jim Griffith Chair in Public Folklore at the Southwest Center in the College of Social and Behavioral Sciences, describes folklife as the grease that oils the machine of everyday life and makes it endurable.

She received her doctorate in anthropology from the University of Arizona in 2003. In addition to holding the Jim Griffith Chair, she is an associate research professor and associate dean for community engagement in SBS and serves as the interim associate vice provost of diversity and inclusion.

"I write, I teach, I have a Ph.D. — but I'm also a cultural producer," Alvarez says. Her title as public folklorist is significant because although she is a scholar, her primary

focus is public education, events and programming. This emphasis on public engagement, she says, fits well with UArizona's land grant designation.

Alvarez carries on the legacy of James S. "Big Jim" Griffith, the first public folklorist at UArizona and co-founder of Tucson Meet Yourself, a cultural festival held annually in downtown Tucson since 1974. Today, the festival is produced by Southwest Folklife Alliance, a nonprofit university affiliate founded by Alvarez.

"Tucson Meet Yourself is a point of pride for the university. It's an incredible, dynamic cultural, folk and traditional art program that is nationally recognized," says Alvarez. "It is one of the longest continually running folklife festivals in the United States and is widely respected and admired because of its authenticity and consistency."

"Tucson locals joke and say it's called Tucson Eat Yourself," Alvarez says with a laugh. She doesn't mind the





Chris Richards photo

tongue-in-cheek joke, because the food is what brings people in.

"If Tucson Meet Yourself was just inviting Tucsonans to come to a lecture about cultural diversity, we probably wouldn't have 150,000 people show up," she says. Alvarez explains that when education is done in the context of music, dance and food, people are more willing to try something from another culture and learn about their neighbors.

Foodways are Alvarez's greatest passion. She calls food "the great equalizer," because all humans eat. But what we eat and our traditions around food are incredibly diverse. A person can be seven generations removed from their land of migration and still connect with that legacy through traditional dishes, she says.

"Foodways provide a bridge between generations. They are a folklorist's paradise."

Tucson is an ideal location for the work of a public folklorist like Alvarez. Its diverse blend of people from different ethnic

Big Jim with  
Maribel Alvarez  
Photo courtesy of  
Maribel Alvarez

## Remembering Big Jim

1935–2021

The Tucson community lost a beloved folklorist, teacher and storyteller with the passing of James S. "Big Jim" Griffith on Dec. 18, 2021. Big Jim was formerly the director of UArizona's Southwest Center and co-founded Tucson Meet Yourself with his wife, Loma Griffith. He was a UArizona alumnus, a retired faculty member and creator of the Jim Griffith Public Folklorist fund, which supports the work of current chairholder Maribel Alvarez. His life's work has been transformational to the representation and celebration of Southwest folk arts.

communities — including Indigenous tribes, Mexican Americans and many others — creates a rich tapestry of unique foodways, folk art traditions and other expressions of folklife.


But the term "folk" can be applied to any group that shares affinity interests, not just ethnic groups. "There is occupational folklore, for instance," explains Alvarez. "In Arizona, you saw a lot of mining folklore and cowboy folklore. Waitresses and firefighters have their own folklore, too."

Alvarez's dedication to folklife goes far beyond an academic pursuit of knowledge. She explains that it's the warmth of human relationships that is her fuel. "With folklife, I have found a bridge to intimacy through the door of respect," she says. "I could run a marathon on the energy that feeling gives me."

"I love the intimacy that folklore allows you to have with strangers," Alvarez says. "There may be people who I have nothing in common with, but then I express interest in their songs, their funeral traditions, their family stories and photographs, how they decorate their house — or I'm interested in their food and want to taste it and know how they make it. These are all little ways of creating understanding, and it is all folklife."

**Learn more about Southern Arizona's regional folklife at [borderlore.org](http://borderlore.org).**





Susan Hamilton  
mask photos

# MASKS THAT TRANSFORM

BY KIM STOLL



Deep lines etched in wood create the shapes of bright red mouths with tongues protruding and empty sockets for eyes to peer through. Strands of goat, cow and horse hair mimic flowing beards and long eyebrows, framing the oval faces. On the foreheads or chins of the anthropomorphic masks, a red or white cross wards against evil, demonstrating the Catholic influence on indigenous traditions.

Today these masks are artifacts on display, but many once had a vibrant life — not only as a piece of art but also as an item with the power to transform. They were once worn by *pascola* dancers, and they hold a deep ritual significance for the Mayo and Yaqui people of southern Arizona and northern Mexico. The *pascola* dons his mask for communal ceremonies and traditional festivities, where he acts as a dancer, a host, a speaker and a ritual clown.

Dozens of *pascola* masks were on display at the Arizona State Museum through April 2022, and can be viewed in the museum's online collection. The exhibit showcases ASM's James S. Griffith Collection and examines the masks and *pascola* traditions that are integral to the Mayo and Yaqui lifeways. It was guest curated by Santiago Benton (Mayo) and Yaqui *pascola* elders in collaboration with Griffith and ASM.

Lisa Falk exhibit photos



Involving members of the Mayo and Yaqui communities in the creation of the exhibit was important for the proper representation of these culturally important artifacts, says Diane Dittmore, associate curator of ethnological collections. The exhibit is presented in English, Spanish and Yaqui, with portions in Mayo as well.

The mask collection came to ASM in 2005 as a generous donation from James S. "Big Jim" Griffith '61 '67 '73, folklorist and former UArizona researcher. Griffith collected many of the *pascola* masks while visiting Mayo communities in 1965 and 1966 as part of the research for his UArizona anthropology master's thesis focusing on the masks. He would go on to publish multiple scholarly articles about the masks as well.

Dittmore says it was an honor to collaborate on the ASM exhibit with Griffith, who passed away in December 2021 at the age of 86.

**"The exhibit honors our neighbors, the Yaqui, and it also honors Big Jim," she says. "Jim expressed to us that it was the ultimate honor to participate in this exhibit that gave such a strong voice to the Yaqui and Mayo cultures."**





# PAC-12 CHAMPS

Arizona Men's Basketball finished Tommy Lloyd's debut season 33-4 overall and 18-2 in conference play. They reinvigorated McKale Center mid-pandemic and brought team play to the arena. After disappointing losses in the NCAA Tournament, the Wildcats look to next season to build their roster and continue competitive national play.

"We started the season, and nobody believed in us. We made them believe in us," Christian Koloko said in a postgame press conference after the team's NCAA Tournament loss. "We knew we could have done better. That's why our team is sad right now. We knew how good of a team we were, but right now we can't do anything. We've just got to learn from it."



## TOMMY LLOYD

"They're an amazing group of guys. They helped me get Arizona basketball off to a good start in my tenure, and I'll always be thankful for them. We really built some foundational pieces this year that are really going to serve us well moving forward."

- NABC National Coach of the Year
- USBWA National Coach of the Year Honors
- John R. Wooden Pac-12 Coach of the Year
- Pac-12 record for most wins in his first season as head coach
- Pac-12 Regular Season and Tournament Champions

In 2022, Arizona became the first school in Pac-12 history to win 18 conference games.





## CHRISTIAN KOLOKO

- Pac-12 Defensive Player of the Year
- Pac-12 Most Improved Player
- Pac-12 All-Tournament Team

"I mean, we cut down nets.  
That's the most important thing."

## BENNEDICT MATHURIN

- Pac-12 Player of the Year
- Pac-12 Tournament MVP
- Pac-12 All-Tournament Team
- Scored the 10th-highest points in a season in UArizona history

Mike Christy photos





# ANOTHER GREAT YEAR FOR WOMEN'S BASKETBALL

Wildcat fans said goodbye to senior standout Sam Thomas after the team's early exit from the NCAA Tournament in March. They lost in the second round before a home crowd against North Carolina. The Wildcats finished the season 21-8 overall and 10-6 in conference play to earn a No. 4 seed in the tournament. This gave the Wildcats the opportunity to play home games in the first two rounds for the first time since head coach Adia Barnes' senior year in 1998. Arizona Women's Basketball averaged home crowds of 7,822 on the season, which ranked first in the Pac-12 and sixth nationally.

On the year, three Wildcats earned All-Pac-12 recognition. Reese was named to the All-Pac-12 team, Thomas was named Honorable Mention All-Pac-12 and to the Pac-12 All-Defense Team, and Helena Pueyo was named Honorable Mention All-Defense.



## ADIA BARNES

Adia Barnes became the first coach in program history to win 20 or more games in four consecutive seasons and became the second winningest coach in program history. In March, she was named a court coach for the USA Basketball Women's National Team Spring Training Camp. Barnes is no stranger to the international coaching game, as she was an assistant coach on Dawn Staley's staff when the national team won the 2021 AmeriCup in Puerto Rico.





## SAM THOMAS

- The program's first two-time first team Academic All-American honoree
- 2021 Pac-12 Scholar-Athlete of the Year
- Winner of the Elite 90 Award at the 2021 Final Four
- Pac-12 All-Academic team honoree since her sophomore season
- 2022 Honorable Mention All-Pac-12 and to the Pac-12 All-Defense Team
- In 2022, Thomas shot a career-high 42.5% from three, which was third-best in the Pac-12 and the third-best single-season percentage in school history.
- UArizona career leader in games started and played
- At UArizona: 10th all-time in scoring, third in made threes, fourth in three-point percentage, second in blocks and fourth in steals.

## CATE REESE

- 2022 Associated Press Honorable Mention All-American
- All-Pac-12 for the third season in a row
- Seventh in UArizona history in career scoring and fourth in total rebounds
- In 2022, led the Wildcats in scoring and rebounding, averaging 14.6 points and 6.2 rebounds per game.





# THE BUSINESS OF WINNING

Women's basketball standout Sam Thomas leads the way in college athletics entrepreneurship.

By Tim Vanderpool | Chris Richards photos





Sam Thomas arrived at the University of Arizona in 2017 with dreams of contributing to a top-ranked women's basketball team and earning an equally robust education. Those hopes came wildly true: this year alone, she led the Wildcats in blocks per game, shot a powerful 83% from the free-throw line and placed second in steals per game. Off-court, she was named a College Sports Information Directors of America First Team Academic All-American in 2021 and 2022 and the 2021 Pac-12 Scholar-Athlete of the Year, and she earned an Elite 90 Award for the best GPA of any Final Four student-athlete in 2021.

These days, though, Thomas has another dream. Thanks to recent, long-awaited policy revisions by the National Collegiate Athletic Association, she and other student-athletes can now use their names, images and likenesses — or “NILs” — for income. And UArizona has simultaneously launched Arizona Edge, a program designed to help Wildcat athletes reach business goals like operating sports clinics, endorsing products or, in Thomas' case, launching a clothing line.

“I was super happy that I got to take advantage of this,” Thomas says. She was the sole student representative on a Washington, D.C., panel convened by UArizona that urged the U.S. Congress to enact NIL reforms nationwide. “I know a lot of athletes who put a lot of time and effort into the things they do outside sports,” Thomas says. “It's a big step for them to be able to get paid for it.”



Arizona EDGE is a collaboration among Arizona Athletics, the James E. Rogers College of Law and the Eller College of Management that helps student-athletes with business development, personal brand management and financial skills. An offshoot called Arizona EDGE Marketplace serves as a conduit between the business community and UArizona student-athletes, establishing protocols for marketing their personal appearances, sports camps or brand promotions.

Thomas is already leading the charge. Last year, she competed in a Sam's Club scholarship competition for student-athletes named “Sam.” She also interned with Nike, where she learned about branding and marketing.

And in January, she launched a clothing line with women's basketball letterwinner Danielle Adefeso. The pair met several years ago at a UArizona women's basketball reunion; today, Adefeso owns a clothing company called HGHT that caters to NBA players. She helped Thomas develop a clothing line that includes sweatsuits, T-shirts, crop tops and hooded sweatshirts, all branded with an “ST” logo that, of course, includes a basketball.

“I've worked with her closely,” Thomas says, “and she's been awesome.”

Thomas' latest dream also dovetails with the classroom; a research paper for her master's degree in educational leadership focuses on how athletes brand themselves with NIL. To help others, she plans to share her findings. “My goal is to have a map or platform for incoming athletes,” she says. “The do's and don'ts of branding yourself with NIL; what works and doesn't work.”

Thomas' popularity as a successful student-athlete on the court and in the classroom propels her brand. “That's exactly what I want my brand to be,” she says. “It's myself, with athletics, and also off the court with academics. And that I always have a smile on my face.”

The positivity cuts both ways: Fans wore Sam Thomas T-shirts during an Oregon game, she says. “And then I went to Pro Day for the football team, and one of the coaches was wearing my gear. It's the most insane feeling ever.”

The feeling of a dream fulfilled.







## 1950s

**Robert Tilt '57** is living in Palm Springs, California, and is a huge Wildcats basketball fan at 90 years old. Robert enrolled at UArizona in 1949 and had to leave in 1950 to serve in the U.S. Air Force during the Korean War. He returned to the university in 1955 and, after graduating, became a teacher and then an insurance broker until retiring in 2006.

## 1960s

**James Dozier '64**, who retired from the U.S. Army as a major general, has independently published "Finding My Pole Star: Memoir of an American Hero's Life of Faithful Military Service." James was held captive for 42 days before being rescued by a special operations team — a news story that made front-page headlines around the world.

**Philip Bodenhorn '68** has retired to Carlsbad, California, following a 40-year career in the U.S. Army Special Forces and the FBI.

**Carolyn Rose '69** first enjoyed a 25-year television news career, then became the author and independent publisher of "No Substitute for Murder" and 12 books that followed, all based on her experiences as a substitute teacher. She's also written or co-authored a dozen other books, mostly mystery. She lives in Vancouver, Washington.

## 1970s

**Janice Shelton '71 '77** and **David Shelton '71** retired to Tucson in 2014. Janice is a member of the Norton School Council of Alumni and Friends.

**James McLoone '72** recently retired as professor and chair of psychiatry for the UArizona College of Medicine — Phoenix. He has been granted distinguished faculty status as Professor Emeritus of Psychiatry in recognition of his contributions to the university.

**Caren Cowan '75** was honored by the New Mexico Cattle Growers and the staff of New Mexico Stockman as Cattleman of the Year. For the past 30 years, Caren has worked to preserve, protect and promote the interests of stockmen in New Mexico and the West. Caren served as executive director of the New Mexico Cattle Growers Association for 23 years.

**Millicent Eidson '75**, emeritus professor of epidemiology and biostatistics at the State University of New York — Albany, has independently published a novel intended to be the first in an alphabetical series about diseases from animals. In "Anthraxis: A Microbial Mystery," the protagonist is a new trainee with the Centers for Disease Control and Prevention who battles Arizona anthrax.

**Janet Yagoda Shagam '78** is the author of "A Caregiver's Guide to Dementia: An Unintended Journey" (Prometheus). The book addresses the needs and challenges faced by adult children and other family members who struggle to make

sense of what is happening to themselves and the loved ones in their care with dementia. Janet, an experienced medical and science writer known for her ability to clearly explain complex and emotionally sensitive topics, also is a former family caregiver.

**JoAnn Klar '79** lives in Houston and retired in 2020.

## 1980s

**Meredith Gordon '83** is the co-author of "All the Love: Healing Your Heart and Finding Meaning After Pregnancy Loss" (Keylight Books). The book, which is part memoir, part therapy session, shines a contemporary light on perinatal loss and is dedicated to supporting and empowering women and their partners through miscarriage, stillbirth and other types of pregnancy loss.

**Meredith Gordon '83** and four friends recently enjoyed a reunion and celebration of their 60th birthdays. Meredith, **Stephanie Zielonka '83**, **Chris Volsky Northrup '83**, **Teri Rosensweig Brenits '83** and **Barbara Foster Bietz '83 '85** met at the beginning of their Wildcat journeys when they were all assigned to the ninth floor of the Arizona dorm.

**Joe Sterk '85** is chief information officer at Quiettrack Insurance Services Inc. in Santa Rosa, California.



**Roderic Stipe '87** and his wife, Leslie Stipe, have moved from the suburbs to a little farm in Earlville, Illinois. Leslie has retired after teaching high school math for nearly 30 years. Rod expects to work from home for a few more years.

**Daniel Kates '88** recently relocated back to his home state of Arizona after a 20-year career journey that took him from Illinois and California. He currently is vice president and head of medical affairs for Cytokinetix Inc., a late-stage biopharmaceutical company. He also is an active member of the Wildcat Mentor Society.

## 1990s

**Sallie Cochren '91** and her sister, **Elsie Marie Cochren '00**, have independently published "The Voynich's Daughter." The vampire hunter book is the first in a planned series called The Vânător Vampire Hunters.

**Laurel Disbrow '91** has retired from her position as a teacher and librarian at Auburn School District in Auburn, Washington.

**John Birkinbine '93** and his Line and Space LLC business partners **Bob Clements '89** and **Henry Tom '89** were recently honored with two architecture design awards. The Flowing Wells Library Addition, located in Tucson, won the 2021 American Institute of Architects Western Mountain Region Design Award for Distinguished Architecture. The Sahuarita Regional Library received a Cultural Best Project award from Engineering News Record.

**Kristen Denton '94** works as an editor in book packaging and design/layout for Komikwerks LLC and Actionopolis LLC in the Los Angeles area.

## 2000s

**Beatriz Cornejo '00** is a landscape photographer in Los Angeles. Through her work, she wishes to inspire and motivate others to explore Earth's infinite wonder.

**Robin A. Fossen '01** was recently promoted to president of Melt Media, a digital marketing and project management firm in Tempe. Robin was the company's 11th employee in the early 2000s

and now leads the company and its staff of around 80. Melt Media is recognized annually as one of the top places to work in Arizona and was named by Forbes as one of the top 500 newer companies to work for.

**Marc Goldich '01** has accepted the role of general counsel at Terraform Labs, the software development company behind the Terra public blockchain. Marc previously worked in private law practice at Reed Smith LLP and Axler Goldich LLC.

**Seth Frantzman '02** is the author of "Drone Wars: Pioneers, Killing Machines, Artificial Intelligence and the Battle for the Future" (Bombardier Books). The book examines the ways drones are transforming conflicts around the world.

**Matthew McCarthy '03** is chief legal officer and secretary for U.S. Bancorp Investments Inc. Matthew lives in Minneapolis with his wife, Alex McCarthy, and their son, David.

**Joey Medina '04**, a former football manager and letterwinner, is president and managing partner of Journey Payroll and HR – Tucson. The firm recently celebrated its one-year anniversary.

**Jon Naviaux '04**, a wealth adviser with Merrill Lynch Wealth Management and partner in the Menashe Morley Naviaux Group in Rancho Santa Fe, California, was named to Forbes' list of America's Top Next-Generation Wealth Advisors for the third time. He also was featured on the 2019 Best-in-State Next-Generation Wealth Advisors list. The 500 advisers honored on this

national list each manage more than \$1 trillion for their clients and are under the age of 40.

**Peter Layshock '05** lives in Houston and is the program manager for the WB-57 High Altitude Research Program at NASA.

**Aaron Rottenstein '07** was named by Forbes as one of the nation's top next-generation wealth advisers and also named Young Man of the Year by the Jewish Federation for Southern Arizona.

**Carly Thomsen '08** is the author of "Visibility Interrupted: Rural Queer Life and the Politics of Unbecoming" (University of Minnesota Press). The book draws from critical race studies, disability studies and queer Marxism, in addition to feminist and queer studies, to consider moments in which queerness and rurality come into contact. Carly is an assistant professor of gender, sexuality and feminist studies at Middlebury College in Vermont.

**Cameron Conaway '09** lives in San Francisco and is head of content marketing at Webex by Cisco.

**Victoria Ramirez '09** was recently named Social Worker of the Year for the Southern Arizona VA Health Care System.

Four Wildcats are leaders at Sierra Tucson, a residential addiction treatment center ranked No. 1 in Arizona by Newsweek. Pictured from left: **Dane Binder '08**, chief operations officer; **Valerie M. Kading '96 '02 '04 '19**, group chief executive officer; **Jasleen Chhatwal '15 '18**, chief medical officer; and **Amy C. Fritton Grudinschi '97**, group chief financial officer.





## 2010s

**Holley May '10** is a board-certified genetic counselor with Natera, a company specializing in cell-free DNA testing related to oncology, women's health and organ health. As a genetic counselor, Holley guides and supports patients seeking more information about how inherited diseases and conditions might affect them or their families and helps interpret genetic test results based on patients' personal and family histories.

**Bradley Mohr '11** sells real estate with Ryan Serhant of the television series Million Dollar Listing New York.

**Caitlin Watters '14** has joined the Rusing Lopez & Lizardi law firm in Tucson as an associate on the litigation team. She is a former Deputy Pima County Attorney who worked in the domestic violence and animal welfare units.

**Nicole Zoe Garcia '15** has been appointed the criminal department administrator for the Superior Court in Maricopa County. Nicole

also recently was honored as the Early Career Professional of the Year by the National Association for Court Management.

**Keith Murfee-DeConcini '15** recently launched a podcast called "Disability Empowerment Now," focusing on disability empowerment and advocacy.

**Janine Vanlandingham '15** has been promoted to a management position at the Arizona Department of Health Services in the immunization program.

**Justin Mathers '16** is a teacher in Sahuarita.

**Donald Sutton '16** is the director of media services at New Engen in New York City.

**Anna Ortiz '17** was honored with the Mel and Enid Zuckerman College of Public Health Young Professional Achievement Award for 2021. Anna is founder and chair of the Arizona Global Development Network, a source for Arizona-based nonprofits working internationally in

development and humanitarian aid to collectively offer support and share best practices and resources.

**Anson Lihosit '19** recently earned the American Planning Association's Certified Planner status and works as a senior planner for Yuma County in Arizona. He has authored a book titled "Peace Corps Epiphanies: Panama" with Peace Corps Writers.

**Miquiela Sanchez-Aguilar '19** is a teacher in Tucson.

## 2020s

**Paige Scalf '21** has joined the Rusing Lopez & Lizardi law firm in Tucson as an associate on the litigation team. Prior to entering law school, she earned a Ph.D. in psychology from the University of Illinois at Urbana-Champaign and had a long career as a cognitive neuroscientist. She also was an assistant professor in the psychology departments at UArizona and Durham University in the U.K.

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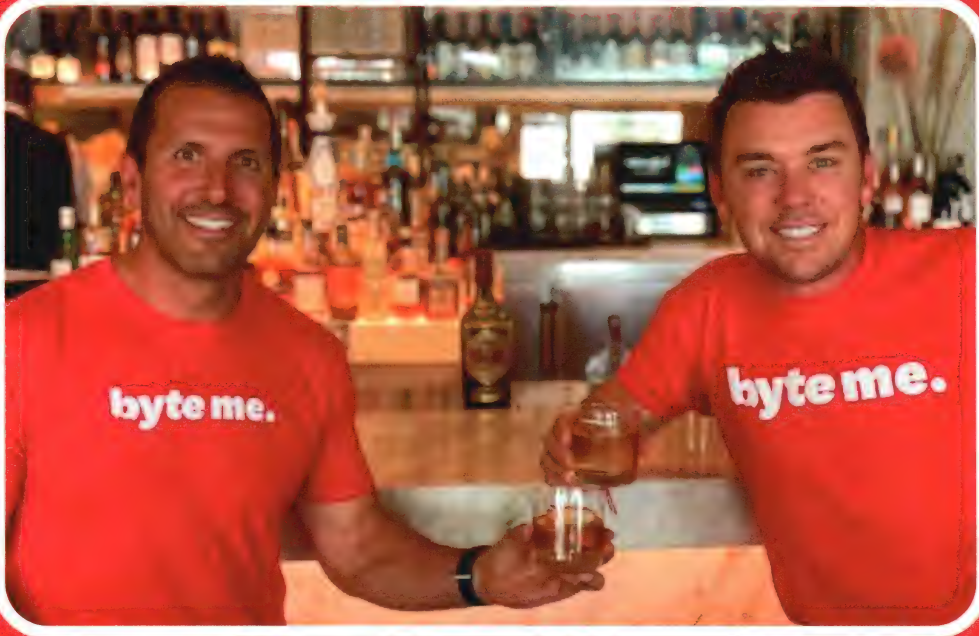
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Scott Cohen and Blake Johnson | photo provided by BYTE

# THE MAKING OF A UNICORN

## ALUMNI ENTREPRENEURS OFFER MORE THAN A GREAT PRODUCT.

By Riley Beck

Scott Cohen '96 and Blake Johnson '99 have always been committed to giving back. The pair, who met as undergrads at the University of Arizona, also have a deep love for their alma mater.

"So many of our greatest memories have come from our time there," Johnson says.

Their entrepreneurial spirit guided them through economic uncertainty when the COVID-19 pandemic began the same year they launched their first joint venture, a company called Byte that produces invisible orthodontic aligners. Amid the economic storm, they saw an emergency brewing and wanted to help.

They realized that people in need of dental care might not be able to access it in person, so they offered teledentistry, free of charge, to anyone who needed it. And they adapted the 3D printers they used to make aligners to manufacture face shields, distributing them to hospitals experiencing shortages.

The expense of pitching in didn't curtail their business success. At the end of 2020, Byte sold for over \$1 billion in cash. In March 2021 Forbes said, "Repeat entrepreneurs Scott Cohen and Blake Johnson built this unicorn in record time in what some have called one of the greatest direct-to-consumer success stories of the century."

Johnson and Cohen don't deny that they are in the business of making money. But their passion for entrepreneurship dovetails with their passion for philanthropy. "They go hand in hand, in our perspective," Cohen says. "We want to do our part in the world to give back, especially in the areas of education, poverty alleviation, health and community."

As devoted Wildcats, Cohen and Johnson have each established endowed UArizona student scholarships.

"Both Scott and I have been the beneficiaries of people reaching out to support us, which set us on a path. ... Now it's our time to lift people up," Johnson says.

Johnson's scholarship will support Eagle Scouts with financial need and academic merit, while Cohen's will benefit high-achieving students with a passion for entrepreneurship in any discipline.

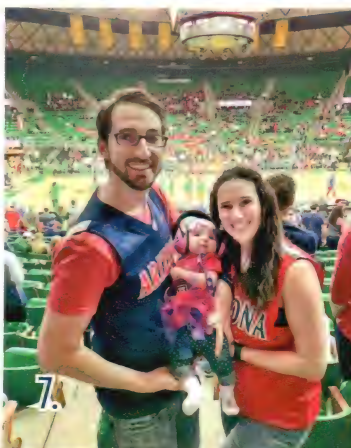
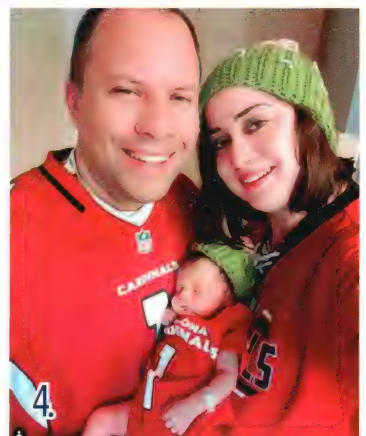
"Supporting the university and incoming kids is super important," Cohen says. "Nothing would give us more pleasure than to follow these students through their paths and make a difference in the outcome of their lives. Our vision is that they come out of the University of Arizona ready to pursue their entrepreneurial dreams."



# WILDCAT WEDDINGS AND FAMILIES



1. **Steven Giordano '17** and **Jessica Grossman '18** recently became engaged at the top of "A" Mountain after spending a day visiting campus. The couple met at UArizona Hillel. They recently moved back to Arizona after living in Nashville, Tennessee.
2. **Kendra Rascón '20** has married her high school sweetheart, a student in the Eller College of Management, after becoming engaged in front of the fountain at Old Main in 2020.
3. **Guy Potucek '95** is raising a future Wildcat, 15-month-old Violet, in Northern Virginia. Guy's older sister also is an alumna, his grandmother worked at the Student Union in the 1950s, and his parents have had basketball season tickets since Fred Snowden was coach.
4. **Phil Villarreal '00** and **Gina Walsh '15** were married in August 2020. They welcomed Arizona Ily Villarreal in October 2021.
5. **Katie Enger '07** and **Eric Enger '06** met the first day they moved into the Graham-Greenlee dorm and were married in 2009. They have since welcomed three little Wildcat cubs, Dylan, 8, Ben, 6, and Land, 18 months.
6. **Nichole Guard '07** welcomed Joseph William Guard in March 2021.
7. **Joel Kanter '12** and his wife, **Denise Kanter '12 '13**, connected in Houston after they both graduated from Arizona. They spent their first date sharing Wildcat basketball memories and planning watch parties. Since then, they've traveled across the country to cheer for the 'Cats. They're now married and raising two future Wildcats. Their daughter attended her first Arizona basketball game at three months old.
8. **Brianna Adrian '14** has two babies, Baker and Carsyn, who were born three years apart and are both Wildcats at heart like their mama.





# IN MEMORIAM

FAREWELL, FRIENDS: WE MOURN THE PASSING OF THESE FELLOW WILDCATS

Barbara M. Twaddle '43  
John Rich '48  
Diana W. Stanley '49  
Dancey Birt '50  
Gilberta C. Pierson '51  
Paul Rees '51 '55  
Stanton Shannon '51  
Harold Hunt '52  
Otis Hutchinson '52  
William Shoemaker '53  
Raymond Hannapel '54 '56  
John Henkel '54  
Jacqueline F. Preciado '54  
Marygrace Colby '55  
R. Larry Hawkins '55  
Thomas Ladd '55  
Paul Senteney '56  
Herlinda M. Aviles '57 '63  
Felipe Munoz '57  
Richard Perkins '58  
Laverne G. Sage '58  
Daniel Mariscal '60

John H. O'Dell '60  
James Griffith '61 '67 '73  
Carol L. Holsten '61  
Jerome Lawson '61  
Gayle G. Lee '61  
Kathryn C. Juhan '63  
Roger Kelly '63  
Bert Lewis '63  
Jean C. Farmer '64  
Christopher Helms '64  
Dawn H. Moreland '64 '69  
Jim Ballard '65  
Richard Rinkel '65  
Thomas Shoup '65  
Robert Smith '65 '75  
Robert Cruse '66  
Karen D. Donaldson '66 '67  
James Haag '66  
Rachel M. Kuenstler '66  
Edward Dunigan '67  
Kathleen M. Miller '67  
Priscilla G. Regur '67 '71

Michael Falvey '68 '72  
Robert Sanderson '68  
Kathleen F. Calcagno '69  
Nelson Cochrane '69  
Edwin Hendricks '69  
Joe Hernandez '69  
Jane J. Rasmussen '69  
Douglas Cook '70  
Randee Dickey '70 '72  
Steve Michener '70  
Howard Roberts '70 '73  
Benjamin Zellner '70  
Robert Smith '71 '73  
Hopkin Cox '72  
David Magrane '72  
David Hill '73  
Deborah N. Lawrence '73  
John Schneider '73 '76  
Gail M. Brooks '74  
Evelyn K. Guymon '76 '81  
Maureen M. Fox '77  
Simone C. Machnik '77

Joseph Arnaud '79  
John Greivenkamp '79 '80  
Warner Jones '79  
Daniel Hull '81  
David Lorenson '81  
William Morrison Jr. '82  
Ina Smalzer '82  
Jay Weintraub '84  
Vasudeva Atluri '87 '88 '98  
Richard Schaffer '87  
William McTee '88  
Richard Salatino '90  
Jane Swicegood '91  
Virginia O. Richardson '93  
Sharon Wolfkiel '93  
Gary Barker '94  
John Crow '96 '03  
Juan Gonzalez '96  
Keith Davis '98  
Rachel Sarah Kipnis '07  
Kimberly McCartney '08  
Johann Alejandre '20

# HOMECOMING

## OCT. 27-30





Photo by Ruben Aguirre,  
Dorrance Foundation for Education

# UNDERSTANDING THE WORLD

**ALUMNI COUPLE'S SUPPORT HELPS SPREAD AND ADVANCE THE WISDOM OF THE HUMANITIES.**  
**BY KATY SMITH AND ERIC SWEDLUND**

Jacquelynn and Bennett Dorrance spent their years at the University of Arizona together, marrying in 1968 and graduating in 1969. But they met in high school in Switzerland. They were seated at a long library table, and Jacquie asked Bennett for a pencil, which he shot down the table toward her. She found her future husband a little rude, but kind of cute.

Once they were in sunny Tucson, the young couple enjoyed outdoor pursuits, hunting or visiting Mount

Lemmon on the weekends. They dined at the erstwhile Tack Room for fancy occasions or when their parents came to visit. They also visited France together as students, and were immersed in the language and culture.

Now the Dorrances share a belief in the importance of international travel, and they're helping students experience it as part of their Wildcat Journeys. The couple offers a study abroad experience to participants





in the Dorrance Scholarship Programs, which have provided academic and financial support to first-generation students at Arizona's three public universities since 1999.

"Travel abroad is a huge part of our thinking. It's imperative," Jacquie says. "When we first address the freshman class [of Dorrance Scholars] coming in, I always say, 'We didn't choose you to change you. But we're offering an opportunity to open your minds and have a better understanding of the world around you.'"

This focus on student travel is part of what keeps the Dorrances closely connected to the College of Humanities, which named them its Alumni of the Year in 2012. Last year, with a \$5.4 million gift commitment, they established the Dorrance Endowed Deanship, expressing an intent to secure the college's future.

"We are endowing the deanship because of our deep appreciation of Alain-Philippe Durand and his leadership as dean," they wrote in a statement.

Durand, the inaugural holder of the Dorrance Endowed Deanship, shares a vision for the college with the Dorrances. With the Dorrances' support, the college is launching the Fearless Inquiries Project, a strategic set of initiatives designed to make the University of Arizona a leader for vibrant humanities programs. In addition to helping students access global education opportunities, it includes using humanities as a platform to further the ideals of democracy and free speech.

Also, Durand and the Dorrances would like to make UArizona the go-to place, especially for other universities, to learn how to support innovative humanities programs, including approaches that combine classic humanities with modern technologies. With the Dorrances support, the College launched the "Humanities Innovators in a Tech World" lecture series, and the "Perspectives Series" in Washington, D.C., to discuss the questions "How Free is Speech on Campus and Does it Matter?"

"The humanities is a way to think through challenges and find new answers. It's about learning from the past, but also from the future," Durand says. "Our goals are to show the power of the humanities to start these kinds of conversations, to open people's minds to different perspectives and concepts, and to create new insights and solutions. Jacquie and Bennett are visionary partners in this work."

'Travel abroad is a huge part of our thinking. It's imperative. When we first address the freshman class [of Dorrance Scholars] coming in, I always say, "We didn't choose you to change you. But we're offering an opportunity to open your minds and have a better understanding of the world around you.'"





Chris Richards photo







# ASKING ALUMNI EXPERTS

## ***What hard-earned wisdom would you share with graduating seniors?***

For expert advice in this issue, we turned to alumni who are successful in a variety of fields. Several of them also are accustomed to providing guidance through the University of Arizona Wildcat Mentor Society, which pairs students with accomplished graduates to ease the transition from college to career.



**ANDY HARRIS '87**

Managing Director, STS Capital Partners  
Operating Partner, Rosewood Private Investments

When I first graduated, I went to work for Exxon as a chemical engineer. It was the largest company in the world, and I was really just a number. It showed me the importance of culture and how important managers are to the success and happiness of workers. So my advice is: to the extent you can, pick a good manager. Remember: You're interviewing them as much as they're interviewing you.

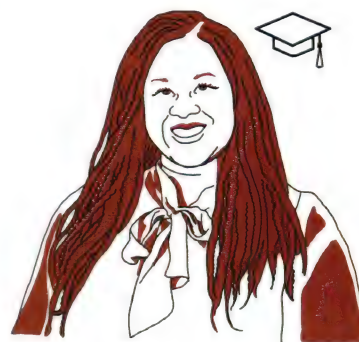
I also advise finding a mentor or mentors to help shape life post-graduation. Then, networking is really important. You never know where it could lead you — great career opportunities, lifelong friends, maybe a partner or spouse. And seek to give back with networking and mentoring. It's not just about what's in it for you. If you've just graduated, you might not feel like you can add much value, but maybe you know someone and you can provide a connection or information.

Whether you're going to graduate school or beginning a career, approach it with humility. Be really willing to serve and put everything you've got into it. There's a saying that the harder you work, the luckier you get.

It's easy to get involved in work and achieving success, but it's also important to make sure you prioritize personal and family objectives. Hold yourself accountable or find others to support you and keep you accountable to help keep things in balance.

**CORINN WILSON '07**

Admissions Manager  
United World College ISAK Japan



First, be a sponge. Take everything in. You're not expected to know everything as a recent graduate. After completing my bachelor's degree in communications, I had many career interests and wanted to explore my options. With each job I observed and learned as much as I could. I would always ask the same questions to my manager and colleagues, "What does this do? What does that mean? What do you do? How does my role/job responsibilities fit into all this?" Asking questions and soaking up your surroundings will help reduce the pressure of "having to know everything." It also shows that you're coachable and willing to learn.

Second, say "yes" to everything, within reason of course. For example, if your manager is soliciting volunteers from your team for a project, say "yes" to the opportunity, even if you're not sure if you are the best person to help out. By saying "yes" you're demonstrating that you're willing to grow, stretch yourself and move out of your comfort zone. These skill sets will help you as you progress in your career. Saying "yes" early on in my career showed my manager and company I was willing to go above and beyond my day-to-day responsibilities. Unique professional opportunities opened up for me as a result.

Finally, have fun! Even when I had a job position where I felt like I needed to be more challenged, I still tried to find something fun about it. I latched on to a fun coworker, went to company events and joined the employee kickball team. I tried to make the most of wherever I was at the time. You're going to spend most of your daily hours at work and with your colleagues so try to make it as enjoyable as possible.

**KATHRYN BERTINE '00**

Founder and CEO  
Homestretch Foundation



One of the most important skills I learned while pursuing my MFA at UArizona was being able to listen to others and consider their viewpoints. As a writer, that's important — and as a human being, I think our society would be a lot better if we could pause, consider and understand other people's opinions.

I came to UArizona from New York state, and the geographical shift in perspective was incredible and necessary to my personal growth. I encourage all graduates to experiment with travel, whether for work, volunteering or vacation. You don't have to make it a big trip to another country; any journey can widen your horizons and make you a better person.

I think it's easy to look at Gen Z and think that this is a generation that just has their heads buried in their screens — but I've watched them engage with others around them, and there's a lot of hope to be found in how they communicate with and accept each other. I'm inspired by the vulnerability of this generation and how many young people are free to be who they are.

My biggest advice for graduates is this: Make sure that your goals have a lot of flexibility. When you envision a life of making all the right choices and taking all the right turns, be brave enough to take a left turn every now and then. Taking an unexpected turn can be a scary thing to do, but I wouldn't have accomplished what I have if I didn't take some risks. Explore different paths as you go, so you don't have to wonder "what if."



**HABIB PIERCE-BYRD '97 '02 '02**

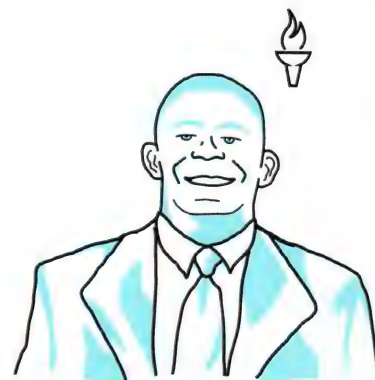
Staff Attorney  
Four Rivers Indian Legal Services

As a first-generation graduate, I had to learn a lot on the fly. One of the things that I'm most grateful that I invested in was staying connected.

Entering the professional world after graduation, I had no idea how making connections and keeping them would lead to opportunities. I soon learned, though: My first law job came by referral from a professor I'd stayed in touch with. They remembered my interest in juvenile work, saw an opening, and connected me for a tour of the courthouse with the open position. One thing led to another, and I was hired.

So, here's my advice: Make genuine connections and keep in touch. Remember to view every step on your educational and career path as an opportunity to meet people. Approach your professors, colleagues and fellow students with specific requests. Ask "Can we keep in touch? May I have your contact information? I'd love to run my resume by you," etc.

Once you're searching for your next position, narrow down what you're looking for and focus in on it. Promote the skills that are relevant to your potential employer and keep your knowledge of technology up to date. When I'm interviewing for a new employee, I look for someone who is a self-starter, who is protective of client data and has demonstrated their ability to honor the confidentiality needs of our profession. Since the pandemic, I've also started looking for a candidate's ability to work well from home and conduct business and assist clients online.

**SEAN MCCLAIN '11**

Founder and CEO  
Absci

Be bold and be willing to take risks. You have to believe in the impossible. And you really have to believe in yourself. There are a lot of ups and downs as an entrepreneur — it's like a roller coaster. But if you stay adaptable and always work toward your vision, with a little bit of grit and perseverance you're going to be successful.

People don't like change, but if you are going to be an entrepreneur, you must embrace change because it's constant. Each day is about solving a problem and creating solutions and chipping away at goals. There are always going to be issues. I've fallen on my face and made plenty of mistakes. I learn from those mistakes and reflect on what went wrong, but I never look back. I always look forward. What has surprised me most is that it took a lot longer than I expected, 10 years, to grow my startup into a successful business.

It is important to constantly learn and to surround yourself with people you can learn from — to always improve and stretch yourself. I like to surround myself with mentors and people who believe that we can make a difference. Our team spans geographies, generations, and areas of expertise, but it is important to me that along with our diverse backgrounds, we have the same mindset and believe in the impossible. I draw on my experience as a wrestler to keep moving forward, to get back up. This idea that you are successful when you own your achievements and you own your failures — you're in the moment, on the mat and in business and life.

**SHELLEY HUFF '05**

CEO  
Serta Simmons Bedding

The most important thing when starting your career is to be intentional about who you work for — both the company and your individual manager. The person training you is going to make a huge impact and set the foundation for you to continue to grow. At the same time, it is also important to choose an organization with a mission, purpose and values that you believe in, and to work for a company where people are going to hold you accountable. I chose to work for Walmart after graduation because of the company's mission and also the person who became my manager. He was the type of leader who gave me responsibility out of the gate, held me accountable, coached me when I made mistakes and proactively identified learning opportunities for me. It's tremendous to wake up every day and work for a company where you're aligned to the mission as well as for a manager who's invested in developing you. If you can find that combination, it's an amazing first step.

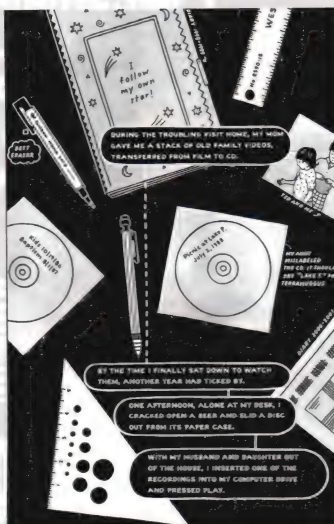
Second, surround yourself with people who share your values. For me, that has always been about operating with integrity and discipline, and being open to change. I've also always tried to surround myself with positive people.

Finally, don't let others change you. People aren't always going to be nice to you. And that's OK. But, you don't have to react differently as a result of that. Over time, people will realize you're not the type of person that's going to engage in negativity, and they'll stop trying.





Alumna Author and Illustrator Margaret Kimball  
By Riley Beck





In her debut graphic memoir, “And Now I Spill the Family Secrets,” Margaret Kimball peels back familial silence and layers of memory to uncover a compound fracture of facts. Part coming-of-age story, part genuine mystery, Kimball’s narrative stands on its own and would be a compelling read even without illustrations. However, Kimball’s distinctive illustrative style creates an immersive experience for the reader, bringing the immediacy of visual scenes to the momentum of the written narrative.

The complexity of Kimball’s task in telling the story of intergenerational traumas through first-person accounts, photographs, found items, official documents, memory and other means is addressed seamlessly with visual codes and cues. Throughout the book, Kimball’s humor, alternately hilarious and heartbreaking, brings to mind Marjane Satrapi’s work, while her investigative approach hearkens to Alison Bechdel’s inquiries into her own family dynamics and true events impossible to comprehend.

“And Now I Spill the Family Secrets” also offers a refreshing commitment to truth in nonfiction and places a clear emphasis on intimacy with the reader.

The truth may often be a gray area, but the reading experience is so vibrant, a reader could be forgiven for not noticing that Kimball’s truth-telling unfolds entirely in black and white.

**Q:** What was exciting about creating this book?

**A:** What became the most exciting part about making this book, for me, was that investigation of trying to pinpoint the timeline and trying to get people to pin down their stories. Because every time I talk to my mom, she’ll add a detail or something will change a little bit. And it’s the same for everybody — for my siblings, my dad. That was so exciting. So I made that part of the narrative as well — that investigative quality. There’s a dual timeline: me now, kind of investigating, plus me as a kid growing up.

So much of the satisfaction for me in writing this book was coming to terms with what happened, you know. Figuring out what happened first, and then feeling like I could come to terms with it. And that’s the solace for me and what I hope is the solace for other readers — feeling less alone with their own dysfunctional family stories.

**Q:** How do you tell a story clearly when it is, by definition, not clear?

**A:** I think, first of all, it’s hard to speak clearly and plainly. But I feel like to do anything other than to try and speak clearly and plainly is to avoid the heart of the matter. I think that avoidance is doing a disservice to the reader, and I don’t understand why people do it. I just feel like — for the sake of intimacy, which is what I hope the act of reading creates — you need to speak as clearly as you possibly can. I know all of academia will berate me for that kind of opinion, but I just want intimacy — that’s what I crave. So I feel like the more open a writer can be, the happier a reader I am. I try to do that, too, so I’m not being a hypocrite.

**Q:** You say to your mother, “I’m not writing about you — I’m writing about me.” You go on to reflect that, of course you’re writing about her. Can you revisit this question of whose story you are telling from where you stand now?

**A:** I think every story is more than one person’s story. But I didn’t know that, you know, when I said that to my mom. I was in my 20s. And I just thought I could be like, “Well, this is about me, not you.” I think with my mom, I wanted to understand this intuition that her experiences impacted the entire family, which is absolutely true. So also, out of the other side of my mouth, I was asking, “Could you tell me more about you? Because I’m writing about myself, and I need your story to do that.” It just wasn’t all clear to me then.

**Q:** Is this a story you *had* to write more than one you wanted to write?

**A:** Yeah. I mean, I put it down so many times. It’s so much easier not to write a book. Writing a book is so miserable in so many ways. But there was something in me with this story — with this story in particular — that was like, “You need to write this down. You need to figure out what happened.” But yeah, I wanted to not write this book. It would have been better for my family relationships at different times. I do think, though, that it ultimately deepened my relationships with my individual family members and my mom in particular, which I’m grateful for.





# ETERNAL VIGILANCE

Bobcats Celebrate 100th Anniversary | By Katy Smith | Chris Richards photos



Jack McDuff



Lorenzo Johnson, Tripp Twyman, Kendal Washington White, Kameron Peyton



**A**s a student, Osaso Ighodaro '21 was president of the Bobcats Senior Honorary, a group of 13 seniors who help keep the University of Arizona's traditions alive. After graduating, she moved to New York City to work as an investment banker for Morgan Stanley.

Even though she's far away from Arizona, Ighodaro maintains a feeling of connection, partly because she's able to reach out to other alumni in her area. And she wants to offer her support to current and future Bobcats.

"Graduating has given me a lot of perspective on what the Bobcats did for me. I'm grateful for the opportunity, and I would love to be a part of creating that for someone else," Ighodaro says. As a contributor in a network of about a thousand former Bobcats, Ighodaro is living her vow and the Bobcats' motto: "Eternal Vigilance."

The university's oldest organization, the Bobcats celebrated its 100th anniversary in February. Bobcats serve the university by organizing student efforts for Homecoming, leading campus tours for supporters and special guests, performing community service, and working with other student groups on their service efforts. They also plan and host the Evening of Excellence, an event where student academic and philanthropic achievements are recognized.

Each class of Bobcats selects the members who will succeed them. The Bobcats also choose two or three honorary Bobcats per year, who are announced at Homecoming. Honorary Bobcats are individuals who exemplify service, make significant contributions and bring honor or recognition to the university.

University of Arizona President Robert C. Robbins was selected as an honorary Bobcat in 2018.

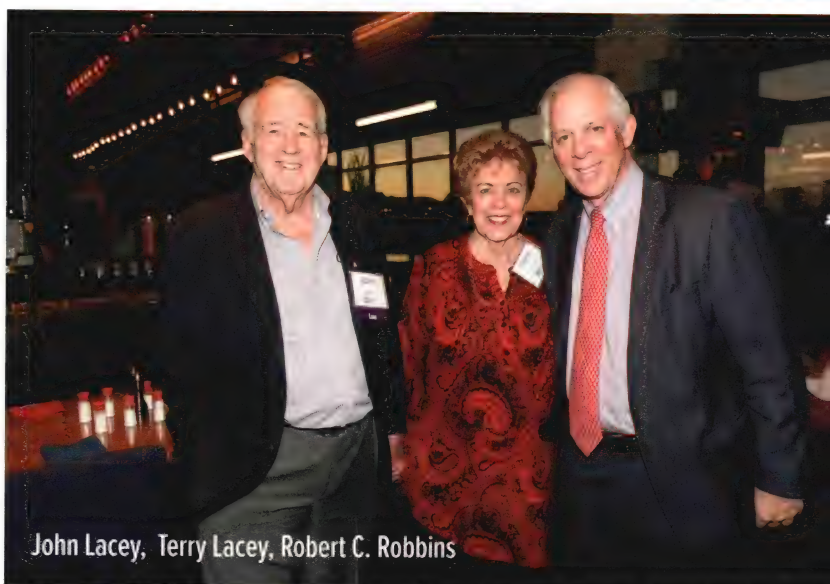
"I am very proud to be an honorary Bobcat, and it has been a true privilege to work with the Bobcats every year — the new cohort as well as the alumni, who remain dedicated to serving the University of Arizona," Robbins says. "The Bobcats are an incredible group of people who have done so much to create a positive culture around campus and beyond for the past 100 years. I am grateful for everything they do."

Another honorary Bobcat, Kent Rollins '73, served as the group's co-adviser for 40 years. He also was president of the UArizona Alumni Association and the University Medical Center Foundation. Rollins believes he's personally known around 700 Bobcats alumni.

"When it comes to supporting the university in many ways — politics, or being a regent, being a donor, supporting a particular college — Bobcats, I think, have the best overall track record of any alumni group," Rollins says.



Aubrey Thrower, Julia Sherman, Jack McDuff



John Lacey, Terry Lacey, Robert C. Robbins



Lloyd Fox





## BOBCATS REMINISCE ABOUT 100 YEARS

“Alumni are the only permanent part of the university. Presidents, faculty and buildings come and go. Once you get a degree, you’re part of the university for life.” — **KENT ROLLINS ’73**

“Reflecting on 100 years makes me think about all that has changed in the world during that time. Despite those changes, each year 13 students continue to dedicate significant time and energy to their university — definitely a milestone worth acknowledging and celebrating.” — **KIRA FINKLER ’88**

“Bobcats is the No. 1 way I’m connected throughout my entire life. The relationships I have are some of the most robust ones I could want. The common bond of the U of A and Bobcats has truly enriched my life.” — **LLOYD FOX ’90**

“The fact that Bobcats has lasted 100 years speaks to its enduring purpose and impact on campus. It takes a special group to keep growing and inspiring student involvement for a century. — **TRIPP TWYMAN ’18**



## HISTORY OF THE BOBCATS

The Bobcats formed in 1922 in response to tensions between students and university administration, according to the group's historical documentation.

At the time, hazing of first-year students by upperclassmen was popular. School leaders took a strong stand against practices that included cutting students' hair or painting their heads green; those who took part were expelled. Students fought back by threatening an organized strike.

On Feb. 22, 1922, a small group of students came together to create a leadership community that would help students form consensus and communicate with administrators. The group was originally called the Wildcats, and its members were anonymous and exclusively male. Their stated purpose was "preserving the unity and welfare of the University of Arizona by always being alert to guide in the right direction."

The name changed to the Bobcats only a few months later. Other changes unfolded over the years. In 1930, the membership was limited to those in their senior year. The number in each Bobcat class varied until 1936 or 1937, when it was set at 13. It wasn't until 1987 that the group admitted women, following a lawsuit. The first female Bobcat was Kira Finkler '88.

"I'm very grateful to the four women who applied to Bobcats in 1986. They helped pave the way for me," Finkler says.

That same year, the group chose two women as honorary Bobcats, Mary Levy Peachin '63 and Anna Marie Chalk.

Chalk was a staff member of the Alumni Association and co-adviser to the group from 1982-2003, together with Kent Rollins '73. Chalk passed away in 2020 and is remembered fondly by many Bobcat alumni, including Angie Johnson '97, who served as the group's first female president and chaired the 100th anniversary committee.

"She would always tell us to go out in the world and remember who you represent — and to not forget to come home," Johnson says. "Keeping that connection will take you far in life and make you even prouder to be a Wildcat."

A fund called the Anna Marie Chalk Memorial Endowment has been established in Chalk's honor. The funds from the endowment will benefit students through Bobcats and the Hispanic Alumni Club.



### WANT TO LEARN MORE?

Scan barcode to watch the anniversary video and hear more stories straight from Bobcats themselves.







Giving Day went live for a 24-hour period beginning at noon on Feb. 14. Wildcats everywhere came together to accomplish the extraordinary, raising \$3.8 million for university students, faculty and programs! Missed Giving Day? You can still make a difference at the university by visiting [crowdfund.arizona.edu/givingday](https://crowdfund.arizona.edu/givingday).

Thank you, Wildcats!



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